

MANUAL 9023.407

CS-8952

**SHIPPING RETROFIT
INSTRUCTIONS**

**CONTINENTAL X-RAY CORPORATION
2000 SOUTH 25TH AVENUE
BROADVIEW, ILLINOIS 60153**

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Broadview, Illinois 60153

CS-8952 BUMPER STOP/BREATHING HOLE REWORK

1.1 BUMPER STOP

The Bumper Stop in certain Spot Film Devices (SFD) was not installed. Check the SFD for the Bumper Stop per **FIGURE 1**. If it is not installed perform the following:

1. Drill a hole for a 8-32 tap at the location specified in **FIGURE 1** (6.5" from the rail end, centered in its width).
2. Thread the hole with a 8-32 tap.
3. Install the Bumper Stop, part number 4167.070.01, in the tapped hole. Hand tighten.

1.2 BREATHING HOLE.

The breathing hole in certain Transformers' Access Covers, see **FIGURES 2 and 3**, may need to be enlarged. If the threaded adapter which is supposed to fit in the breathing hole and adapt to the plastic tube of the Volume Chamber will not fit perform the following:

1. Remove the Top Access Cover. Be careful to avoid contaminating the oil with dirt.
2. Move the Cover to a work area and drill a hole for a 10-32 tap.
3. Thread the hole with a 10-32 tap.
4. Install the Threaded Adapter, and the Volume Chamber.
5. Install the finished Cover.

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BUMPER STOP/BREATHING HOLE REWORK

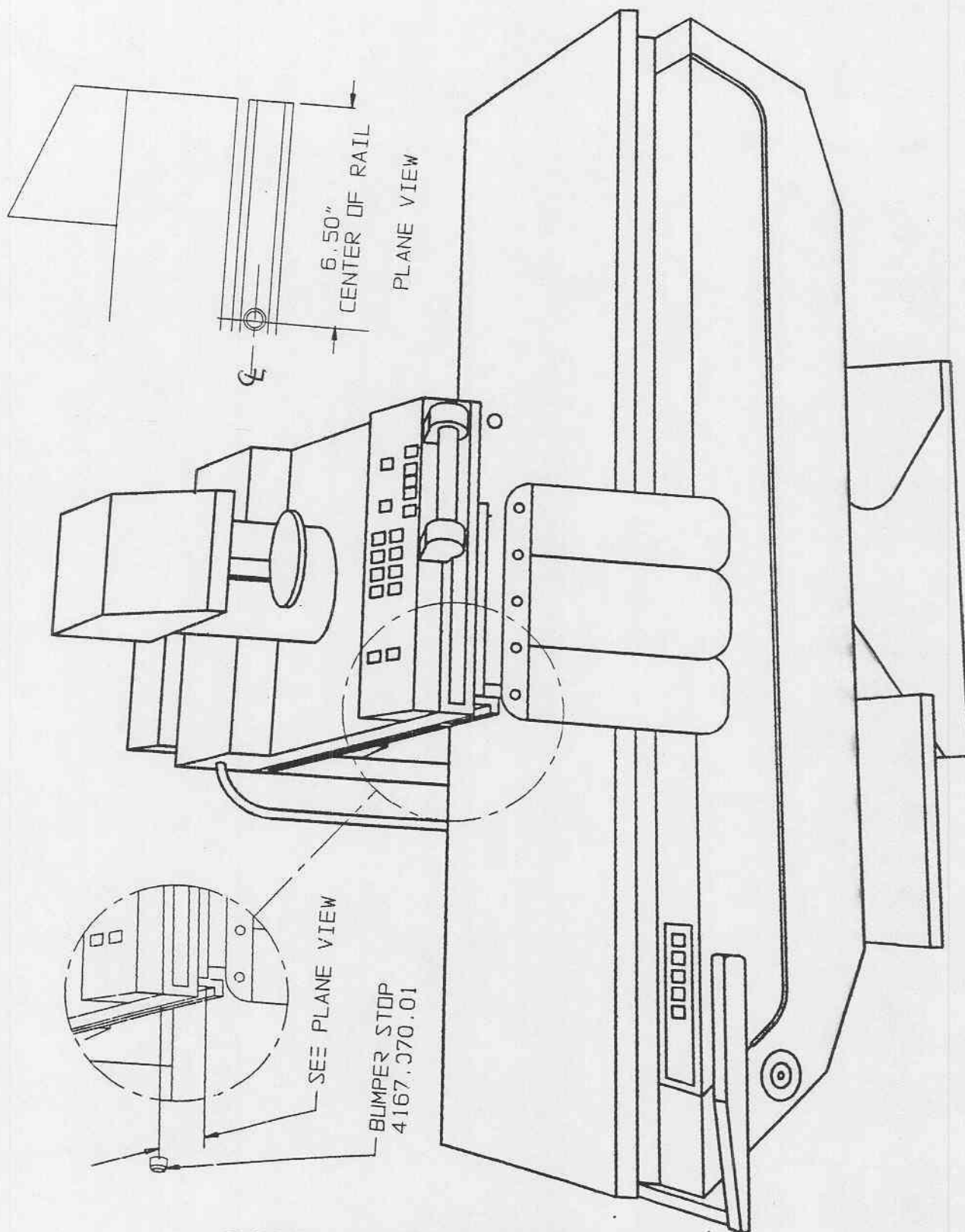


FIGURE 1 BUMPER STOP INSTALLATION

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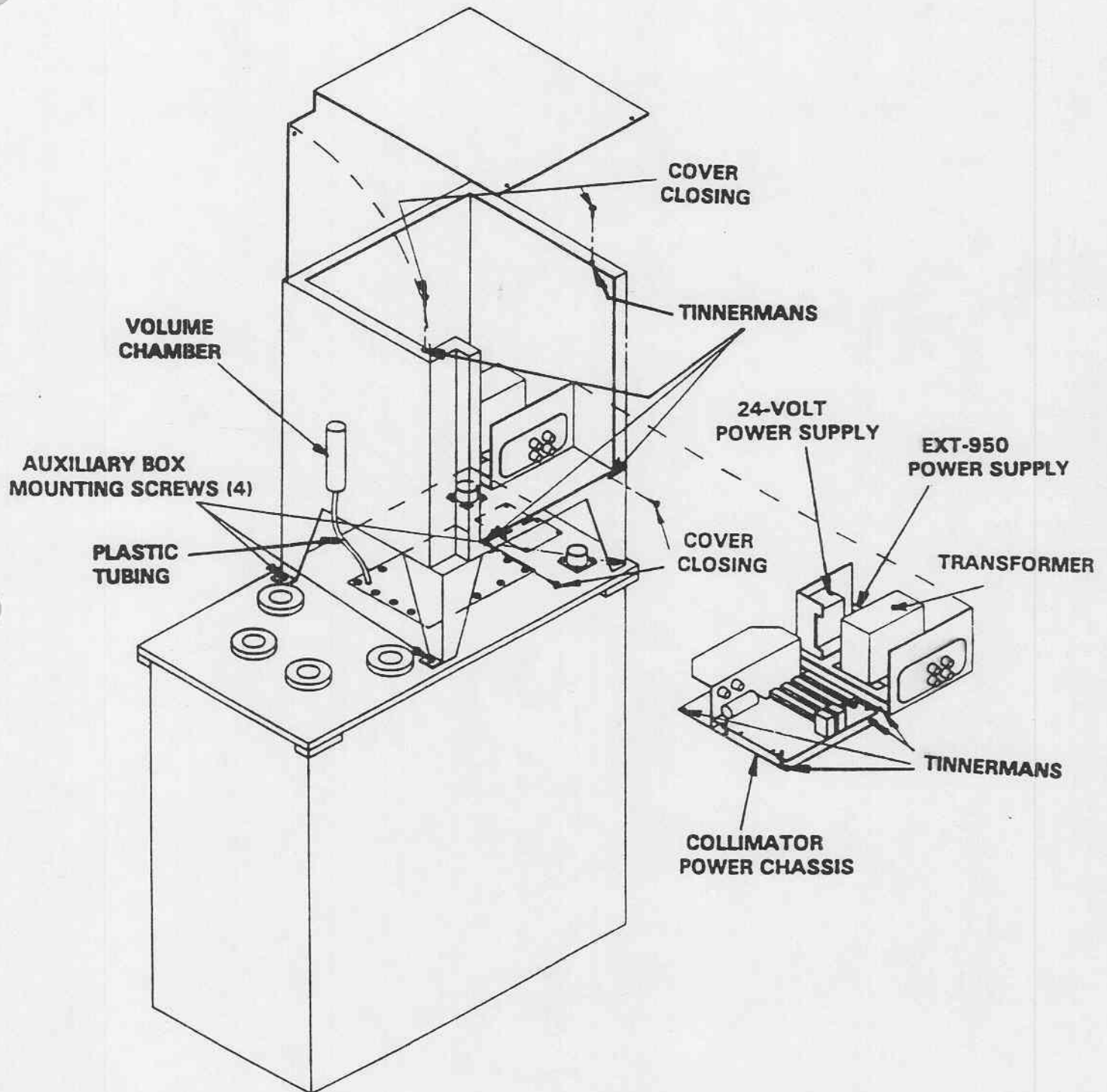


FIGURE 2 AUXILIARY BOX/TRANSFORMER

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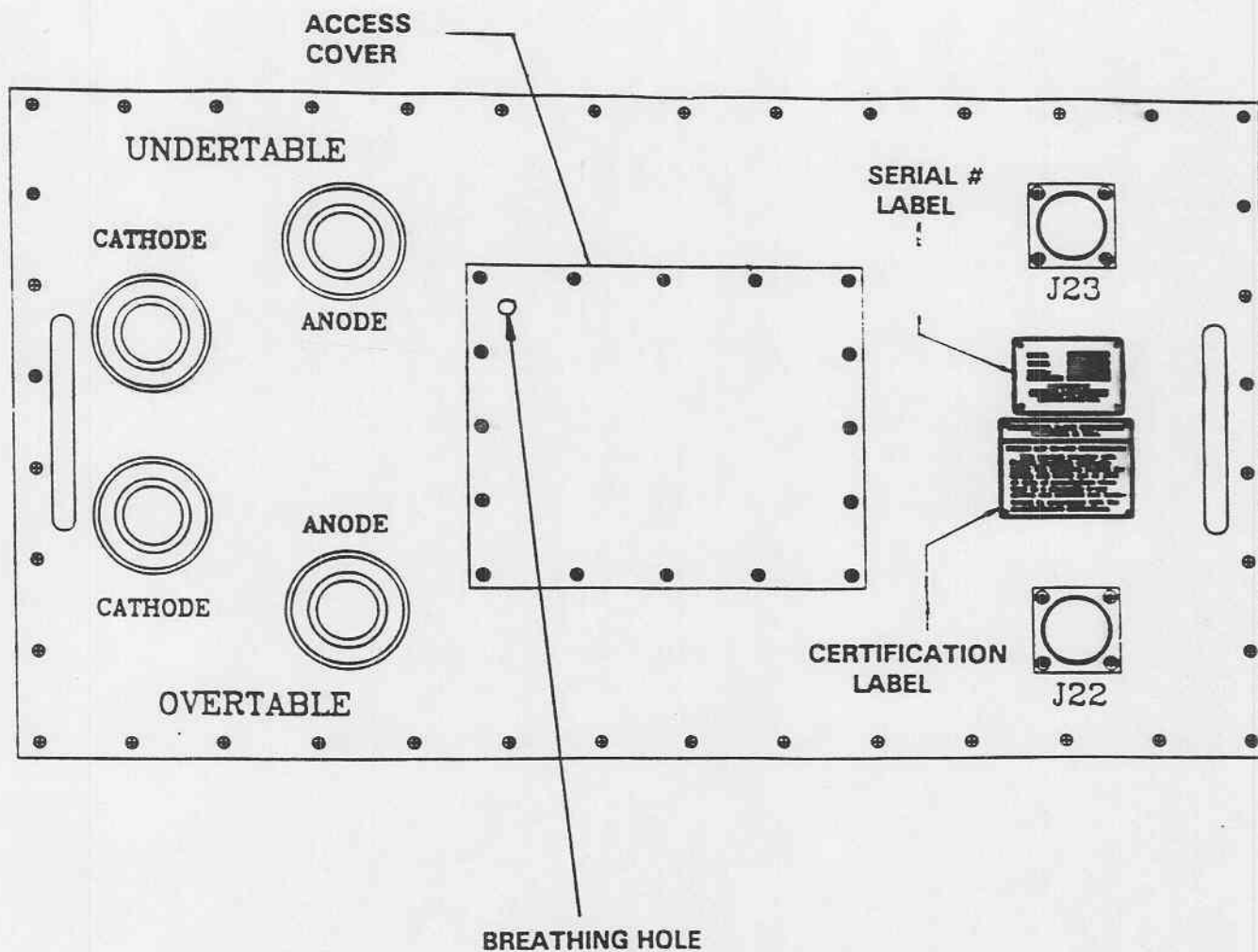


FIGURE 3 HIGH VOLTAGE TRANSFORMER TOP

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SECTION ONE

1.0 SCOPE OF MANUAL

This manual provides instructions on how to add shipping fixtures to the CS-8952 Field Deployable X-ray System, when installed in an iso shelter. The shipping fixtures are designed to provide additional protection from shipping damage. Additionally, the fixtures will reduce the time required for preparing the system for use after shipping, and the time required for preparation for shipping.

The instructions are divided into two sections. Section One provides instructions on installing a new set of shipping fixtures in the iso shelter. Section Two provides instructions on upgrades to the equipment to enhance its ruggedness.

Also included are Addenda A through F (see Table of Contents). Addenda B, D and E provide instructions on four equipment upgrades. Most equipment will not need these upgrades. Verify if the retrofit is needed. Parts required have previously been provided.

1.1 TOOLS REQUIRED

large screwdriver that can be used as a wedge	file
1/4" slotted screwdriver	wooden mallet
#0 5" phillips screwdriver	tape measure
#2 3" phillips screwdriver	denatured alcohol
#2 7" phillips screwdriver	paper towels
small ratchet set, 1/4" to 1/2"	level
large ratchet set, 7/16" to 1"	tie wraps
7" long nose pliers	tie wrap gun
set open-end wrenches, 3/8" to 1"	wire cutter
set of allen wrenches, 1/16" to 5/8"	protractor
Loctite #242 and #271	grease pencil
50 foot-lb torque wrench	level
5/8" - 7/8" eccentric (bearing) wrench (Continental part # 4144.474.03)	1/4" drill
iso shelter insert mounting tool	1/4" drill bit
2 x 4 lumber, or other material to support tubestand base	

1.2 PARTS SUPPLIED FOR NEW SHIPPING FIXTURES

see Addendum A

1.3 REMOVE TABLE LEG COVERS

See **FIGURE 1-9**. Remove the two covers on the table leg. The covers are held in place with six screws. If power is available, it is easier to remove the covers on the table leg by tilting the table in both directions for easy access. Leave the table leg covers off until all retrofits are completed.

1.4 REMOVE TABLE TOP AND SUB TOP

See **FIGURE 1-1**. If power is available, it is easier to move the table top for access to the side bracket screws, however access holes are provided if power is not available.

1. Remove the three screws in the rear edge of the table top. This will allow the table top to be removed.
2. Remove the three screws that attach the table top drive bracket to the frame. Manually adjust the table top drive bracket until the frame moves freely.
3. Slide the frame to the foot end of the table. Remove the sub-top end bracket, at the head end.
4. Using the "access holes" as needed, loosen the twelve screws that attach the four sub-top side brackets. Do not remove the screws. Loosen sufficiently to slide the sub-top out.

CAUTION!

The sub-top (barium shield) is fragile and must be handled with care.

5. Slide the frame to the head end of the table. Loosen the screws in the foot end sub-top end bracket.
6. Move the frame to the foot end. Gently slide the sub-top out at the head end.

Leave the top and sub-top off until all retrofits are completed.

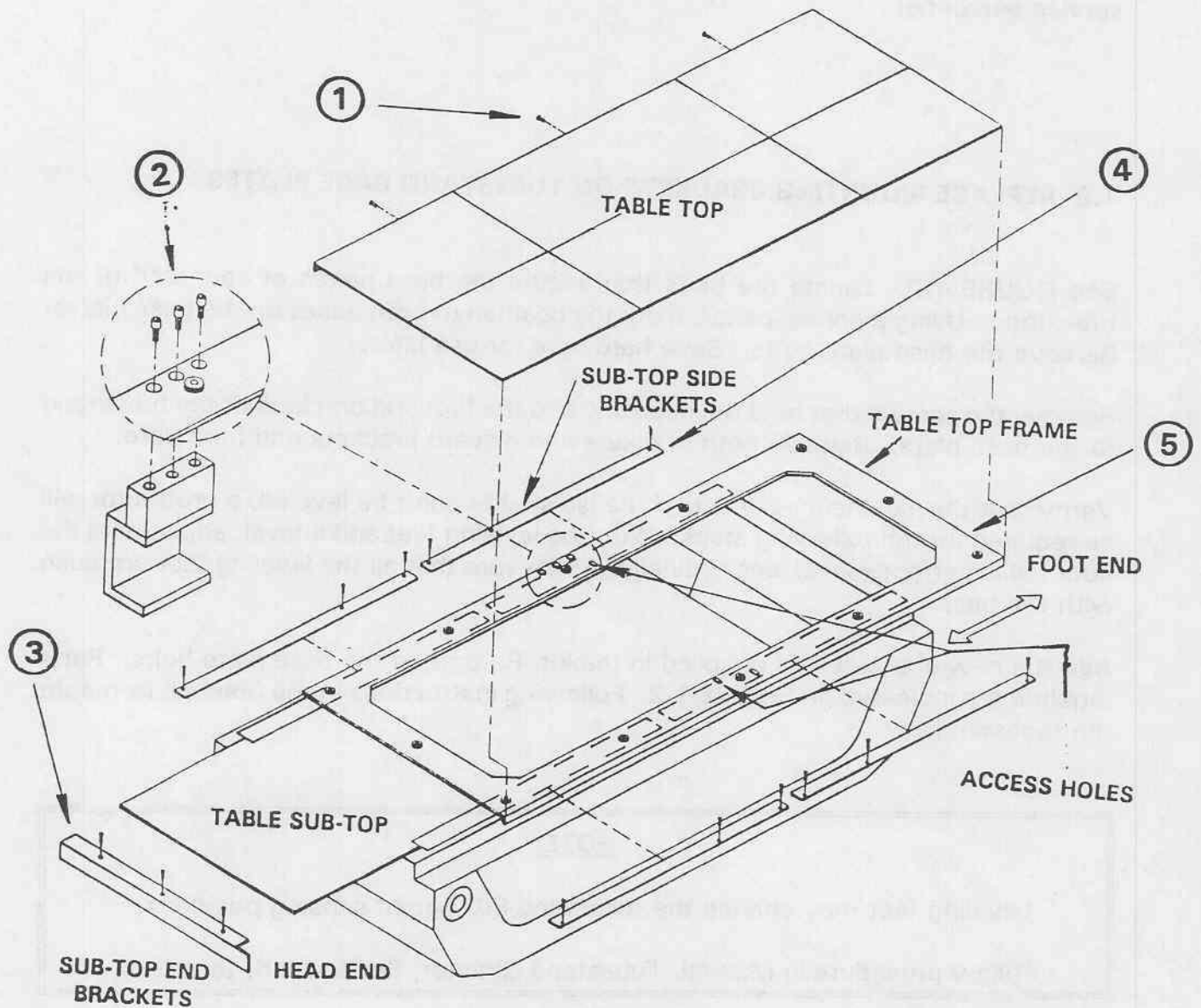


FIGURE 1-1 TABLE TOP AND SUB TOP REMOVAL

1.5 TURN POWER OFF

At this point, disconnect power **AT THE CIRCUIT BREAKER** to ensure the safety of service personnel.

1.6 REPLACE MOUNTING BRACKETS ON TUBESTAND BASE PLATES

See **FIGURE 1-2**. Locate the bolts that secure the base plates at each end of the tubestand. Using a grease pencil, mark the position of both bases on the base plates. Remove the base plate bolts. Save hardware for use later.

Remove the screws that hold the head end and the foot end brackets of the tubestand to the base plate. Remove both brackets and discard brackets and hardware.

Verify that the iso shelter is level. If the iso shelter can't be leveled, a protractor will be required for the following steps. With the leveling feet and a level, adjust until the floor rail is perfectly level longitudinally. Make sure that all the leveling feet are flush with the base.

Add the new end brackets supplied in the kit. Re-tighten the base plate bolts. Parts required are indicated on **FIGURE 1-2**. Following instructions in the Manual, re-mount the tubestand.

NOTE:

Leveling feet may change the tubestand SID height sensing positions.

Follow procedure in Manual, Tubestand Chapter, **Section 2.5**, to adjust.

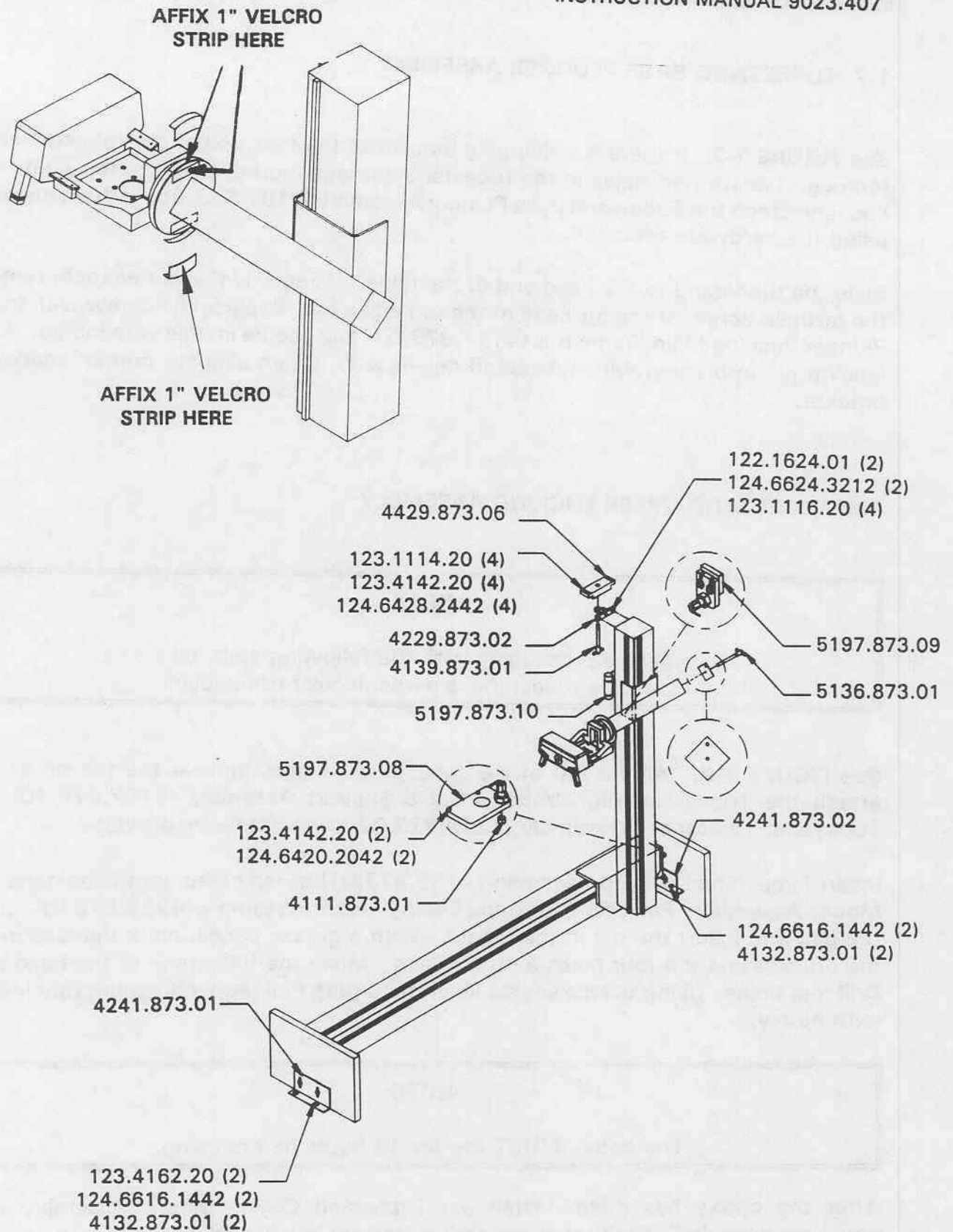


FIGURE 1-2 TUBESTAND SHIPPING FIXTURES

1.7 TUBESTAND BASE PLUNGER ASSEMBLY

See **FIGURE 1-2**. If there is a shipping bracket at the foot end of the tubestand rail, remove. Locate two holes in the tubestand carriage mount, over the top guide rail. Loosely attach the Tubestand Base Plunger Assembly (5197.873.08) in the two holes, using the hardware attached.

Slide the tubestand to the head end of the table. Using a 1/4" allen wrench, remove the farthest screw at the foot end of the top guide rail. Replace the screw with Insert Plunger Bushing Main Frame Rail (4111.873.01) and secure in hole with loctite. Align locking pin in bracket with tubestand hole insert. When aligned, tighten screws in bracket.

1.8 TUBESTAND UPPER LOCKING ASSEMBLY

NOTE:

Before proceeding with the following step, be sure the tubestand is perpendicular using level.

See **FIGURE 1-2**. At the top of the tubestand column, remove the top cover and attach the Tubestand High Voltage Cable Support Assembly (5197.873.10) and Tubestand Top Mount Assembly (4229.873.02) with hardware provided.

Insert Tubestand Lock Pin Assembly (4139.873.01) as indicated, into Tubestand Top Mount Assembly. Position Tubestand Ceiling Mount Assembly (4229.873.06) under the pin, and insert the pin in the mount. With a grease pencil, mark the location of the bracket and the four holes on the ceiling. Move the tubestand to the head end. Drill four holes. Using the iso shelter insert mounting tool required, mount four inserts with epoxy.

NOTE:

The epoxy **MUST** dry for 48 hours before using.

After the epoxy has dried, install the Tubestand Ceiling Mount Assembly with hardware provided. Verify that the spring-loaded pin will easily align with the ceiling bracket, and adjust the tubestand column bracket mount and tubestand ceiling mount assembly as required.

1.9 TUBESTAND VERTICAL CARRIAGE PLUNGER ASSEMBLY

See **FIGURE 1-2**. On the tubestand column, locate the front guide rail. The rail is attached to the column with 13 screws. Locate the 3rd screw from the top and remove.

On the bottom of the tubestand arm, locate the two bearings that ride on the tubestand column guide rail. Carefully, remove the two screws that hold the bearings in place, while holding the bearings in position with your other hand. If necessary, wedge the bearings in place so they won't drop.

Position the Tubestand Vertical Carriage Assembly (5197.873.09) over the holes in the column. Install the bearing eccentric assemblies using the same hardware, using (removable) Loctite 242 to secure.

Using the 5/8" - 7/8" eccentric (bearing) wrench (Continental part # 4144.474.03), adjust for proper bearing movement. Align so that the spring-loaded pin will lock in the hole where the screw was removed. Tighten.

1.10 TUBESTAND LATERAL MOVEMENT LOCK

See **FIGURE 1-2**. On the diagonal square plate on the rear of the tubestand arm, remove the locking bolt and replace with the Tubestand Lateral Movement Lock (5136.873.01).

1.11 ADD VELCRO TO TUBESTAND ARM

See **FIGURE 1-2**. Attach velcro as indicated, to prevent tubestand rotation during shipping.

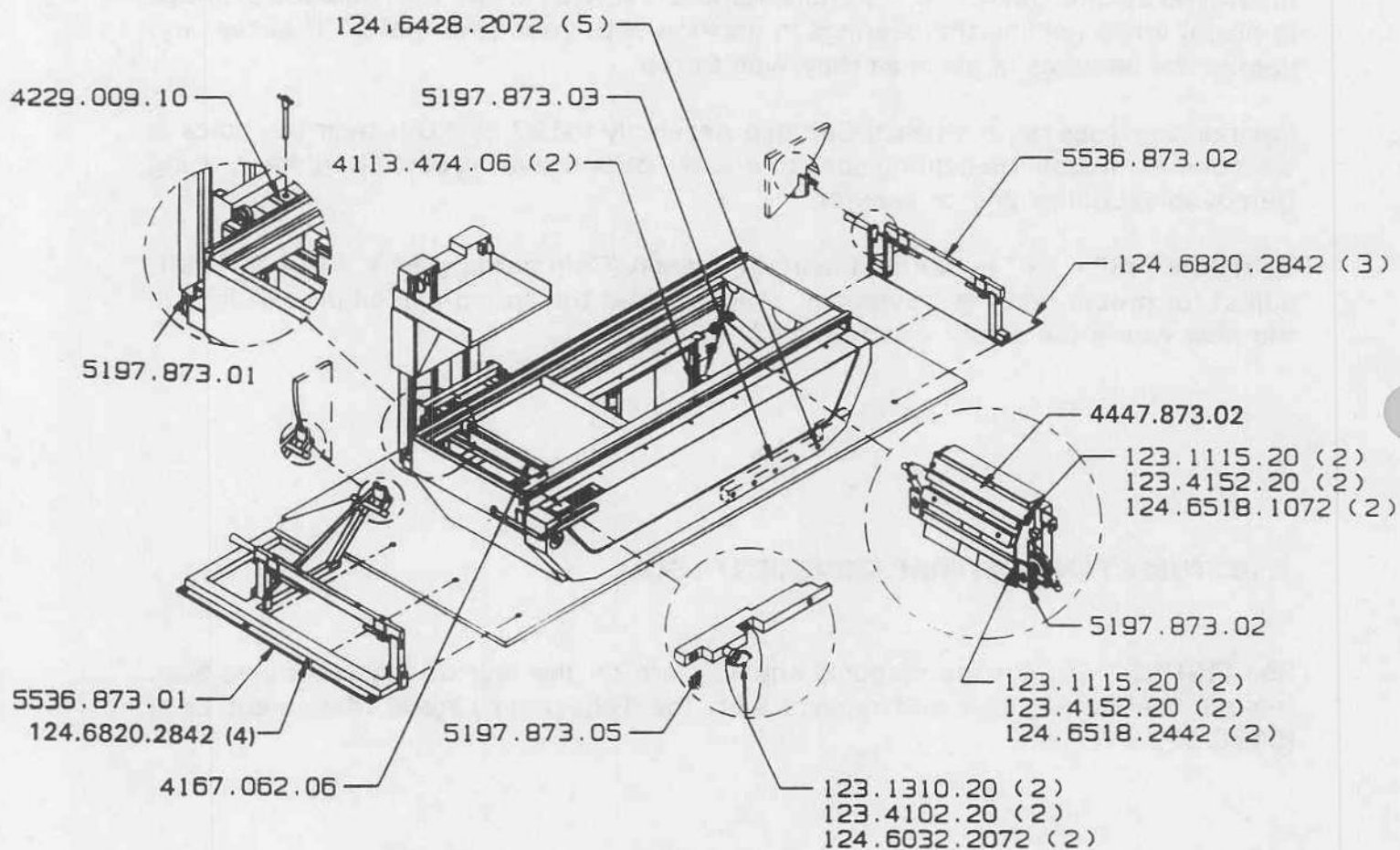


FIGURE 1-3 TABLE SHIPPING FIXTURES, PART NUMBERS

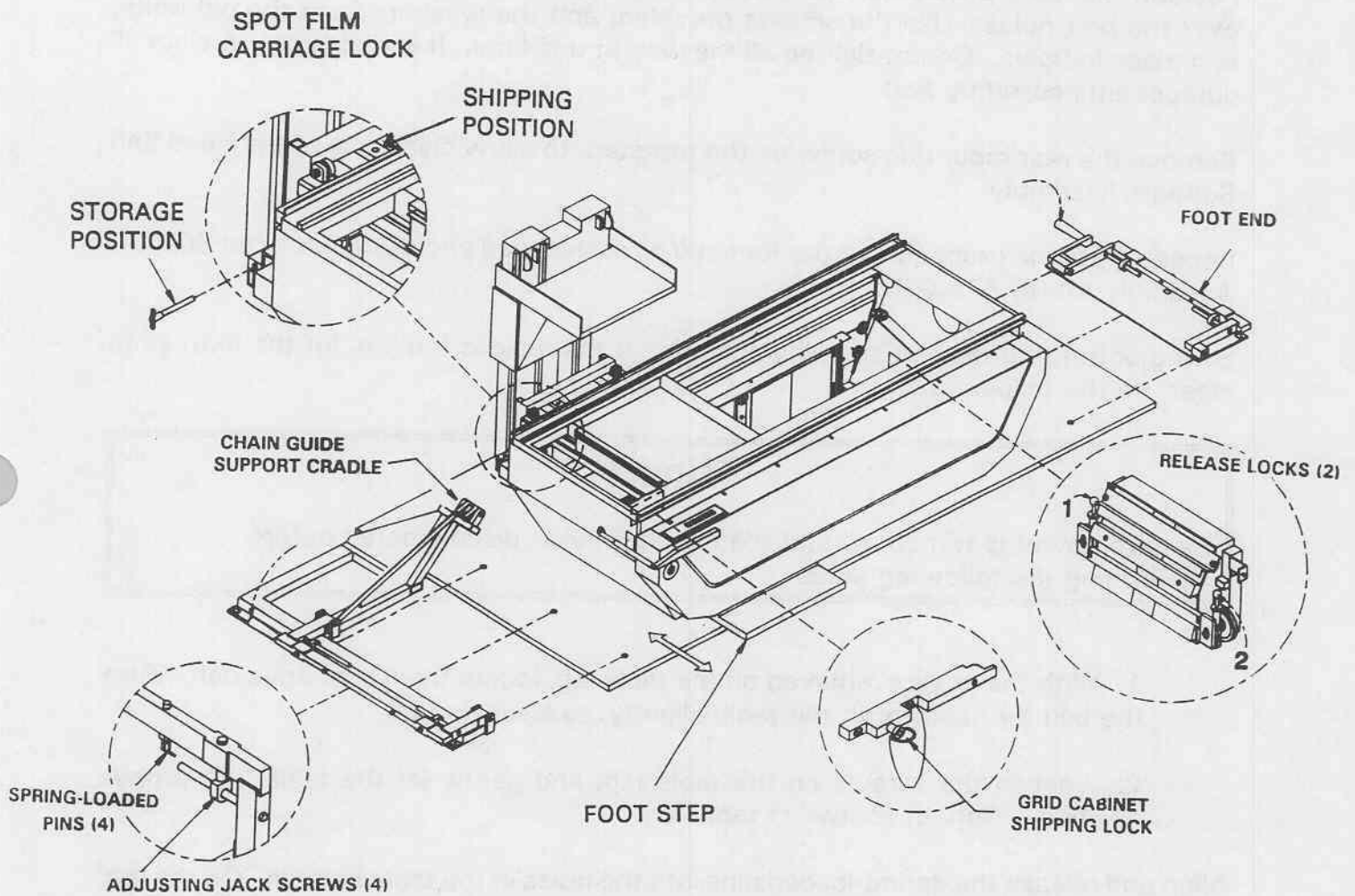


FIGURE 1-4 TABLE SHIPPING FIXTURES, CALL-OUTS

1.12 TABLE HEAD END AND FOOT END SUPPORT ASSEMBLY

See **FIGURES 1-3** and **1-4**. On the table base plate at the head end, remove the four existing bolts, flat washers, and lockwashers that attach the base plate to the floor of the Iso Shelter. Save the washers and bolts.

Position the slotted holes of the Table Head End Support Assembly (5536.873.01) over the bolt holes. Use the screws provided, and the washers from the old bolts, and place in holes. Do not tighten all the way at this time. It is necessary to align all components correctly first.

Remove the rear mounting screw on the footstep, to allow clearance of the Head End Support Assembly.

Repeat the same procedure at the foot end as at the head end using Foot End Support Assembly (5536.873.02).

Swing both fixtures up to shipping position. If the table is too low for the fixtures to clear, do the following:

CAUTION!

Be sure power is turned off and the circuit breaker disconnected before performing the following steps.

1. With the covers removed on the table leg, locate the motor drive belt. Turn the belt by hand to tilt the table slightly, to clear fixture.
2. Loosen the screws on the table leg, and gently jar the table into proper position. Tighten screws in table leg.

Align and release the spring-loaded pins into the holes in the table bottom. On the left side of the head end fixture is the "chain guide shipping support cradle". When positioned correctly, the cradle will fit securely around the edge of the chain guide.

When both fixtures are positioned at both ends and the chain guide cradle is correctly positioned, and the spring-loaded pins are in shipping position, tighten the bolts in both ends of the base plate **all the way**.

At this point, perform the upgrades in **Section 2.11**, if required.

1.13 ADD GRID CABINET SHIPPING LOCK

In **FIGURE 1-4**, see "Grid Cabinet Shipping Lock". There may be an old shipping bar in this position, held with two phillips screws. Remove the old bar. Replace with Table Body Grid Shipping Lock (5197.873.05).

With 1/4" drill and 1/4" bit, enlarge the locking hole in the grid cabinet.

Position the new shipping bar and use the hardware attached. Do not tighten screws all the way. Move the grid cabinet fully to the head end of the table. Align the holes so that the spring-loaded pin will lock the grid cabinet at the head end. When properly aligned, tighten screws.

1.14 ADD SPOT FILM DEVICE CARRIAGE LOCK

See **FIGURE 1-5**. Move the spot film carriage all the way to the rear of the table. Locate the guide bar in the middle of the lateral carriage support (4229.009.10). Replace with a new bar that has an additional hole.

The bar is held in place with four blocks with adjustable screws (124.1624.2451). Using a 3/16" allen wrench, loosen the alignment screws on the foot end side. Remove two additional screws in the bar, one on the top, and one screw on the bottom. Remove the bar and save the hardware for re-installation. Replace with the new bar supplied. Position as indicated in **FIGURE 1-5**. Replace with old hardware and tighten.

As the spot film carriage moves from the head end to the foot end of the table, or vice versa, its movement is stopped at both ends by "stop brackets". These brackets are secured to the table frame with four 5/16" socket head cap screws.

Using a grease pencil (or some marking method), mark the position of the hardware. Remove both brackets with a 1/2" open end wrench. Both foot end and head end "stop brackets" will be re-installed on top of the new Table Body Longitudinal Carriage Bracket Assembly (5197.873.01). Attached to this assembly is the High Voltage Cable Guard Mounting Strip (4240.873.01). See **FIGURE 1-9**.

Using two people, one at each end at the rear of the table, move 5197.873.01 into position over the mounting holes that held the two end stops. Position the end stops on the previously marked locations. At the head end of the table, using a 5/32" allen wrench, install two 124.1518.2421 socket head screws, using the lock washers and flat washers and nuts provided. At the foot end, use a 1/4" allen wrench and install 124.6518.2042 screws, using the lock washers and washers (no nut) provided.

TOP VIEW

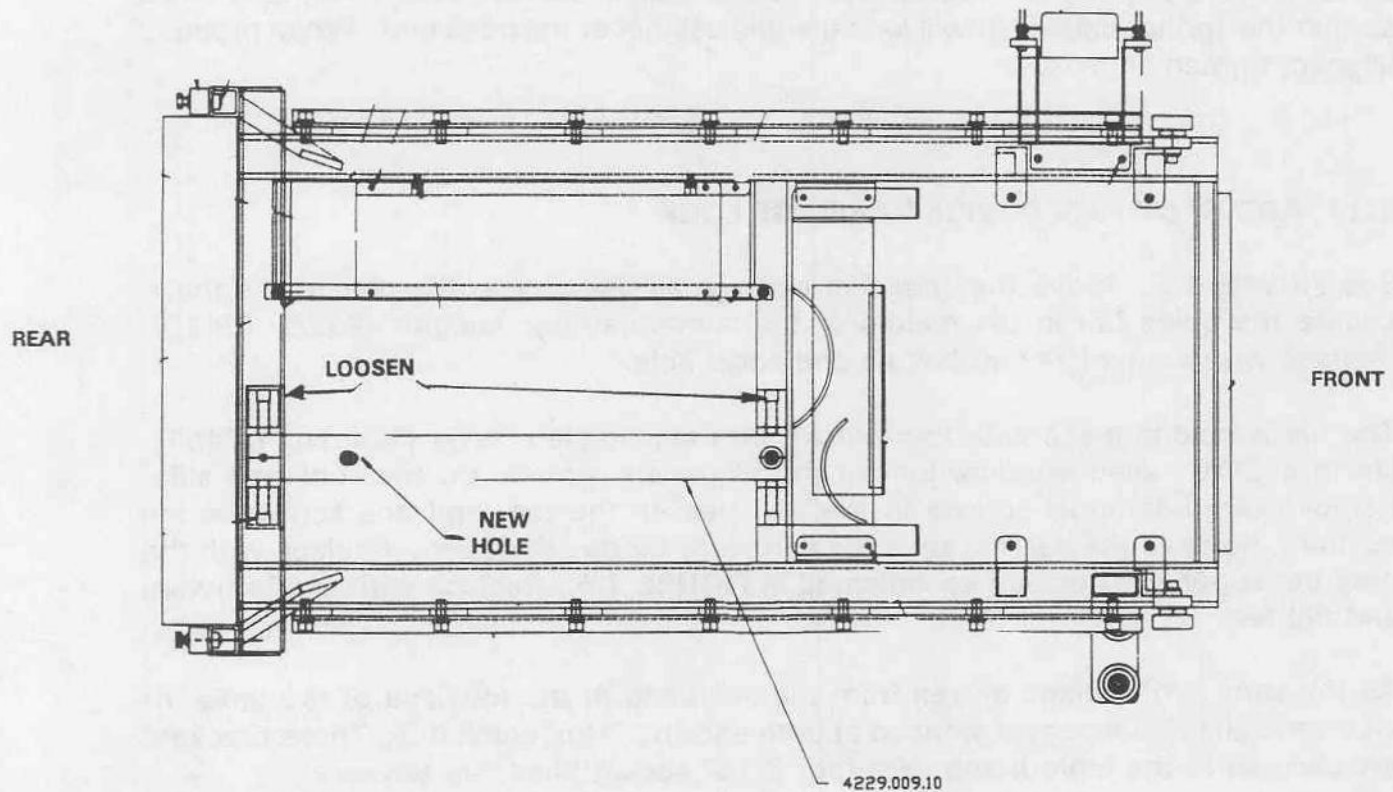


FIGURE 1-5 SPOT FILM LATERAL CARRIAGE GUIDE TRACK

1.14 ADD SPOT FILM DEVICE CARRIAGE LOCK (continued)

Loosely attach the bar at both ends. Before completely tightening this bar into place, verify alignment for the attached spring-loaded pin into the hole in the lateral bar and the side rear bar.

Verify the spot film device moves freely front-to-back, and there is no binding. Move the spot film carriage longitudinally and verify that it stops correctly at the end brackets. If not, readjust.

1.15 ADD RUBBER STOP ON GRID CABINET

See **FIGURE 1-6**. Move the grid cabinet in the table body all the way to the head end. Affix the enclosed self-adhesive bumper (part # 4167.062.06) on the protrusion of the ion chamber, at the rear of the grid cabinet, at the point that the grid cabinet would collide with the grid cabinet hinged guide arm.

1.16 TABLE REAR COUNTERWEIGHTS

Move the grid cabinet fully to the head end of the table. Move the spot film carriage fully to the head end of the table, and locate the rear counterweights, that move along the inside rear of the table body as the spot device carriage is moved.

See **FIGURE 1-7**. Using a 3/8" allen wrench, remove the four screws that secure the counterweights to the counterweight mounting plate.

Using a 7/16" allen wrench in the center of the pulley, remove the rear counterweight two bottom pulleys. Replace the pulleys with 4113.474.06, provided, using the same hardware.

Remove two of the lead sheets from the stack of the rear counterweight, and replace the hardware (less the two sheets) using loctite.

Perform Section 2.15, Move Cable in Table Bottom, at this point.

On the bottom of the table, at the rear, about the middle, is a "tilt safety microswitch" that prevents table tilting if the spot device is unsafely positioned. After replacing the rear counterweight, slide the spot device carriage fully in both directions. Verify that the microswitch activates at all points. If necessary, loosen the two nuts holding the microswitch and adjust its position.

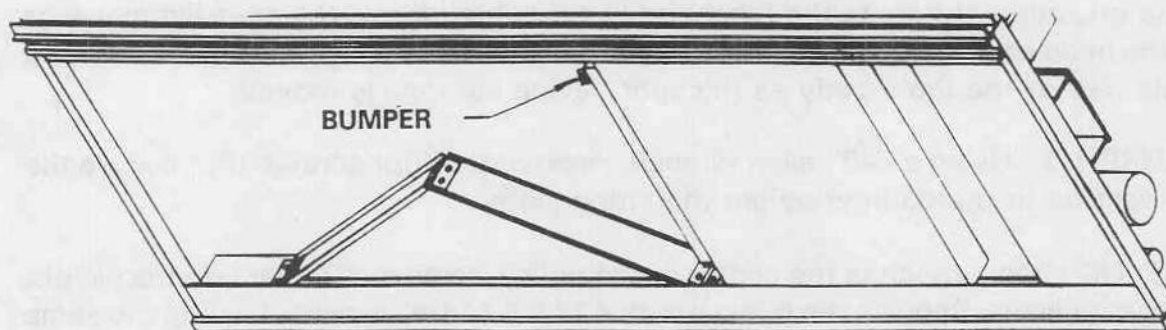


FIGURE 1-6 GRID CABINET BUMPER STOP

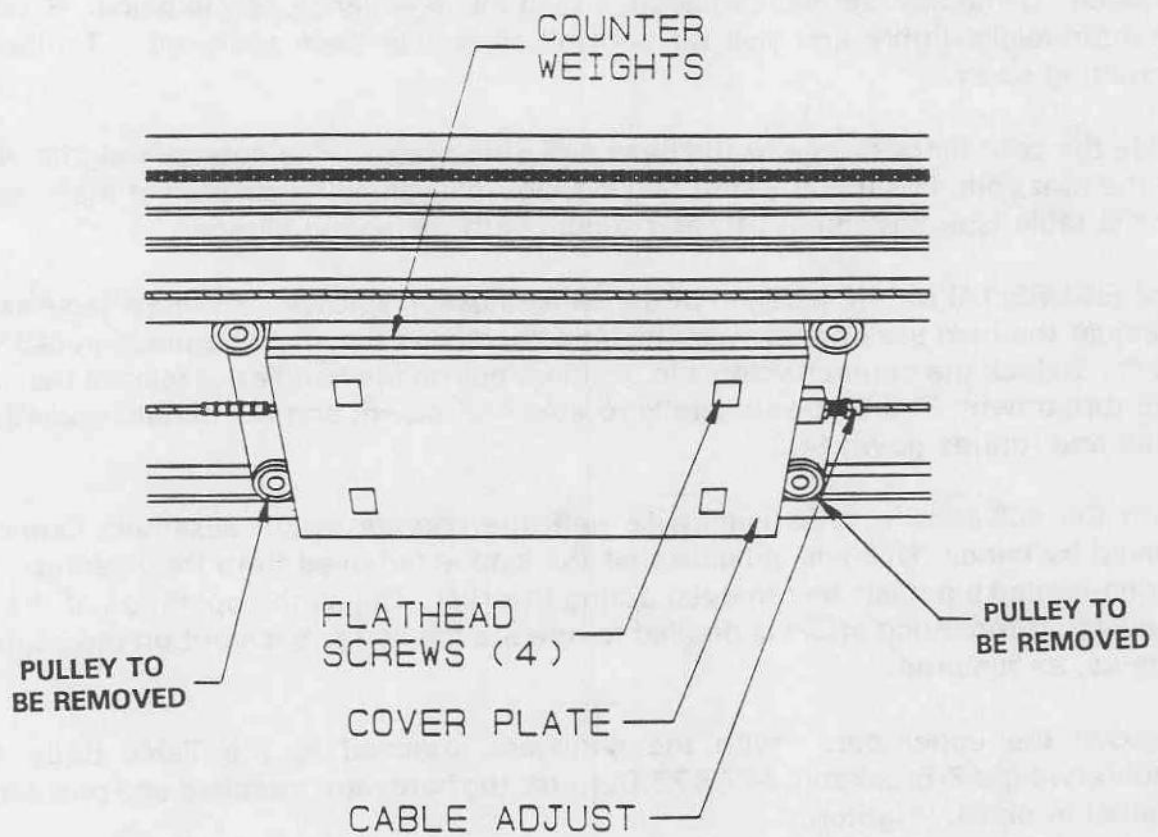


FIGURE 1-7 TABLE REAR COUNTERWEIGHT PULLEY

1.17 TABLE FRONT COUNTERWEIGHTS

See **FIGURES 1-3, 1-4 and 1-8**. Move the spot film carriage sufficiently to allow access to the table front counterweight screws. Remove the five screws at the foot end that attach the front counterweight guide channel in place. Install the new Table Body Counterweight Support Bar Assembly (5197.873.03) using attached hardware, in the five holes.

The front counterweight is held in position with two retaining straps. Remove both straps and discard.

Position the new Table Body Main Counterweight Cam Bar Assembly (5197.873.02) in place. Using new screws provided, attach the new bar loosely in place. Grasp the counterweight firmly and pull up until all slack has been removed. Tighten the mounting screws.

Slide the spot film carriage to the head end of the table. The counterweights will go to the foot end. Position the spot film carriage in its shipping position at the head end of the table (see **Section 1.14**), and secure with the spring plunger.

See **FIGURE 1-8** for the location of the cam adjusting screws. It will be necessary to readjust the cam assemblies with the cam handles in the shipping position (45° and 90°). To lock the counterweights in position, pull on the handles to release the cams, and turn down. The foot-end handle rotates 45° down, and the handle towards the head-end rotates down 90°.

Turn the adjusting screws clockwise until the counterweight assembly cannot be moved by hand. This will indicate that the load is removed from the bearings. The spring-loaded pin must be removed during this test. Check the operation of the cam handles. If too much effort is needed to operate the cams, back out on the adjusting screws, as required.

Remove the upper bar. With the hardware attached to the Table Body Main Counterweight Z-Bracket (4447.873.02), use the hardware attached and position the bracket in place. Tighten.

With the cam bracket release locks in the "release" position ("up"), slide the spot film carriage back and forth in both directions. Verify the carriage can move freely, and has no obstacles in its path.

1.18 MOUNT TWO-SIDED SHIPPING FIXTURE POSTER TO ISO SHELTER WALL

Using the adhesive-backed velcro attached to the top of the poster, mount on a convenient area on the wall behind the tubestand.

1.19 ATTACH VELCRO ON RADIATION SHIELD

Add corresponding strips of velcro (supplied) to the back of the table radiation shield, and to the table body, positioned to prevent the radiation shield from rattling during transport.

1.20 ATTACH SHIPPING LABELS SUPPLIED

Included in the parts supplied is a yellow-and-black sheet of self-adhesive labels.

See **Addendum C** for instructions on attaching the labels to the shipping fixtures.

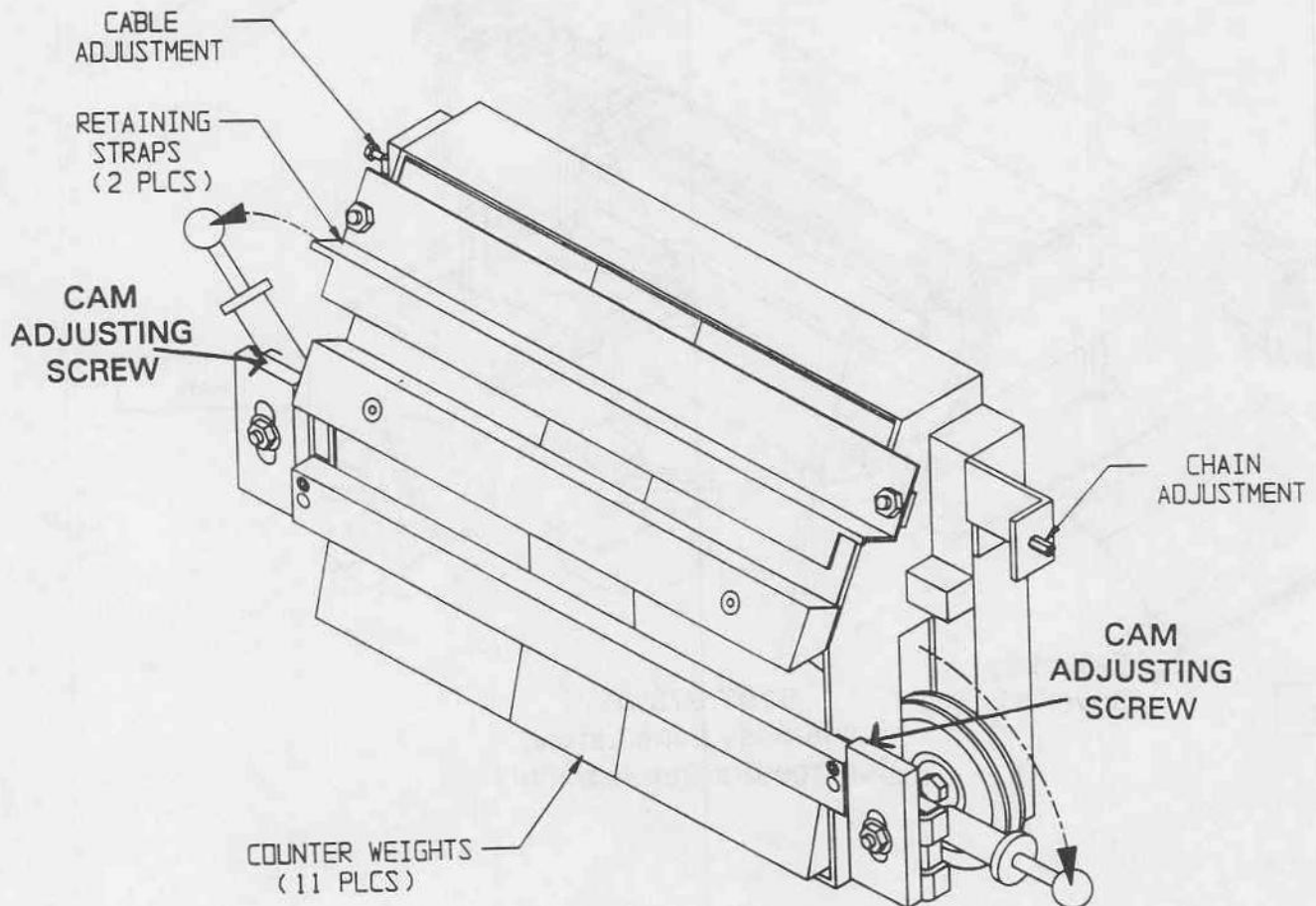


FIGURE 1-8 TABLE FRONT COUNTERWEIGHTS

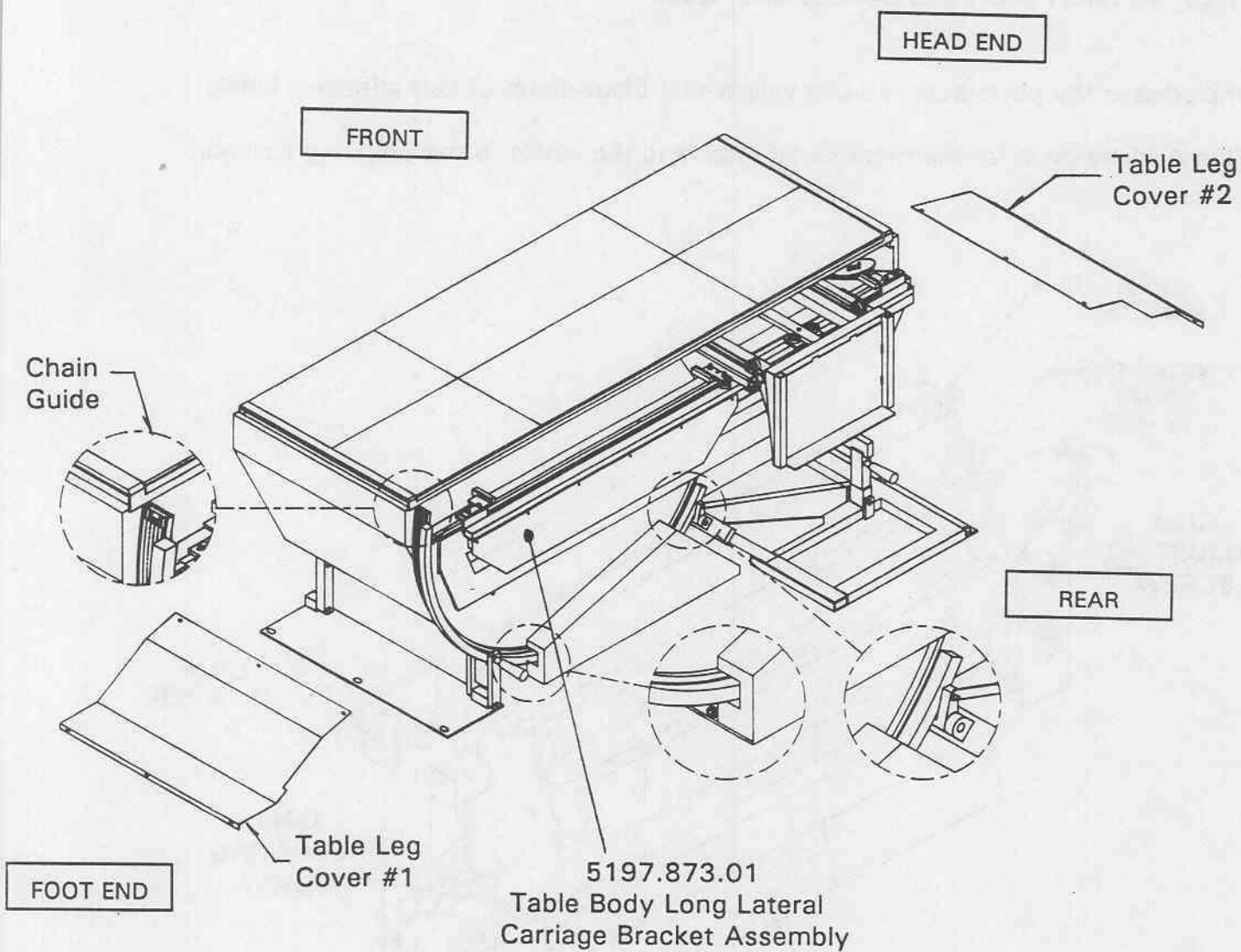


FIGURE 1-9 TABLE SHIPPING FIXTURES, REAR VIEW

SECTION TWO

2.0 EQUIPMENT UPGRADES

The following instructions explain how to perform upgrades to the equipment to improve its ruggedness to withstand shipping damage. Additional parts required are supplied in a kit.

2.1 PARTS SUPPLIED IN UPGRADE KIT

NOTE:

Hardware supplied includes approximately 10% more than required.

Part Number	Description	Quantity	
-----	-----	-----	
1. 123.1114.40	9/32 ID 5/8 OD 1/16 Thk SAE Washer	4	EA
2. 123.1308.20	.170Id .375Od .032T Mach Scrw Washr	13	EA
3. 123.1310.20	.204ID .438OD .032T Mach Scrw Washr	16	EA
4. 123.4092.20	#8 Medium Pattern Split Lockwasher	21	EA
5. 123.4102.20	#10 Medium Pattern Split Lockwasher	16	EA
6. 123.4142.20	1/4 Medium Pattern Split Lockwasher	4	EA
7. 123.6080.20	#8 Internal Tooth Steel Lockwasher	12	EA
8. 124.0832.0871	8-32x1/2 Bttn Sckt Hd Cap Stl Scrw	4	EA
9. 124.0832.1072	8-32x5/8 Bttn Sckt Hd Cap Stl Screw	4	EA
10. 124.6420.0861	1/4-20x1/2 Flt Hd Sckt Blk Oxd Scrw	7	EA
11. 124.6428.1241	1/4-28 X 3/4 Socket Head Cap Screw	4	EA
12. 126.2081.0570	83 X 5/8 Phil Pan Head Steel Screw	12	EA
13. 126.8080.8570	8-32x1/2 Thrd Frmng Phl Pan Hd Scrw	23	EA
14. 191.3252.3071	8AB Type U Tinnerman Nut	12	EA
15. 225.8201.0111	Locktite #271 /.5 Mg. bottle	1	EA
16. 225.8904.	Adhesive Clear Silicone Rubber 1 Oz	1	EA
17. 4110.323.01	Mil H.V. Trnsfrm Sealing Washer	16	EA
18. 4117.322.01	10-32 X1/2 Hex Hd Flange Screw	16	EA
19. 4155.323.08	Mil H.V. Trnsfrm Plastic Tubing	1.66	FT
20. 4167.062.06	.30"H x .81SQ Self Adhesive Bumper	1	EA
21. 4167.070.01	8-32 X 3/8 Stud Rubber Bumper	1	EA
22. 4172.323.01	Mil H.V. Trnsfrm Volume Chamber	1	EA
23. 4175.009.01	3/16 Inch Cable Clamp	3	EA
24. 4175.323.01	Military H V Transformer Fitting	2	EA
25. 4179.060.01	CTF 90/15 Table Top Label	1	EA
26. 4460.873.01	Iso Shltr Shpng Fxtr 31 Label Set	1	EA
27. 5284.062.0401	MXT 90/15 Power Top Long. Drive PCB	1	EA
28. 766.1054.	5-1/2 Inch Rt550 Natural Cable Tie	10	EA

2.2 REPLACE SCREWS ON ACCESS COVER ON HIGH VOLTAGE TRANSFORMER

See **FIGURE 2-1**. The "access cover" is located in the center of the top of the high voltage transformer, and is held in place with 16 screws. The parts required for this step are in a plastic bag marked "Access Cover", and are:

123.4102.20 #10 split lockwasher
123.1310.20 .438 OD washer
4110.323.01 sealing washer
4117.322.01 10-32 x 1/2 flange screw
4175.323.01 breathing hole fitting

The screws must be replaced one at a time to prevent oil from leaking out of the transformer. Using a phillips screwdriver, remove the first screw. Any screw can be used as the starting point. Thread a flange screw with one each of the three washers, in this sequence:

1. #10 split lockwasher (closest to head of screw)
2. .438 OD washer
3. sealing washer (when replaced, sits flush on access cover)

Using a ratchet, replace the screw just removed with the flange screw threaded with one each of the 3 washers. Replace and tighten onto the access cover. Repeat with the next screw until all 16 screws have been replaced.

2.3 ADD VOLUME CHAMBER TO BREATHING HOLE

The parts required for this step are:

4155.323.08 plastic tubing
4172.323.01 volume chamber with clamp

Remove the nylon "breathing" screw (see **FIGURE 2-1**). Replace with 4175.323.01, breathing hole fitting. Use the volume chamber with clamp attached. Remove the shipping screw and nut in the clamp. On the rear side of the auxiliary box (see **FIGURE 2-2**) are 7 large connectors with main connector cables.

On the mounting plate holding the connectors, remove the bottom forward corner screw (adjacent to J16). With the clamp encircling the volume chamber, use the screw from the plate to mount the clamp to the plate, with the "fitting" end of the volume chamber pointing down. Replace with the same screw. Connect the tubing between the breathing hole fitting and the fitting end of the volume chamber.

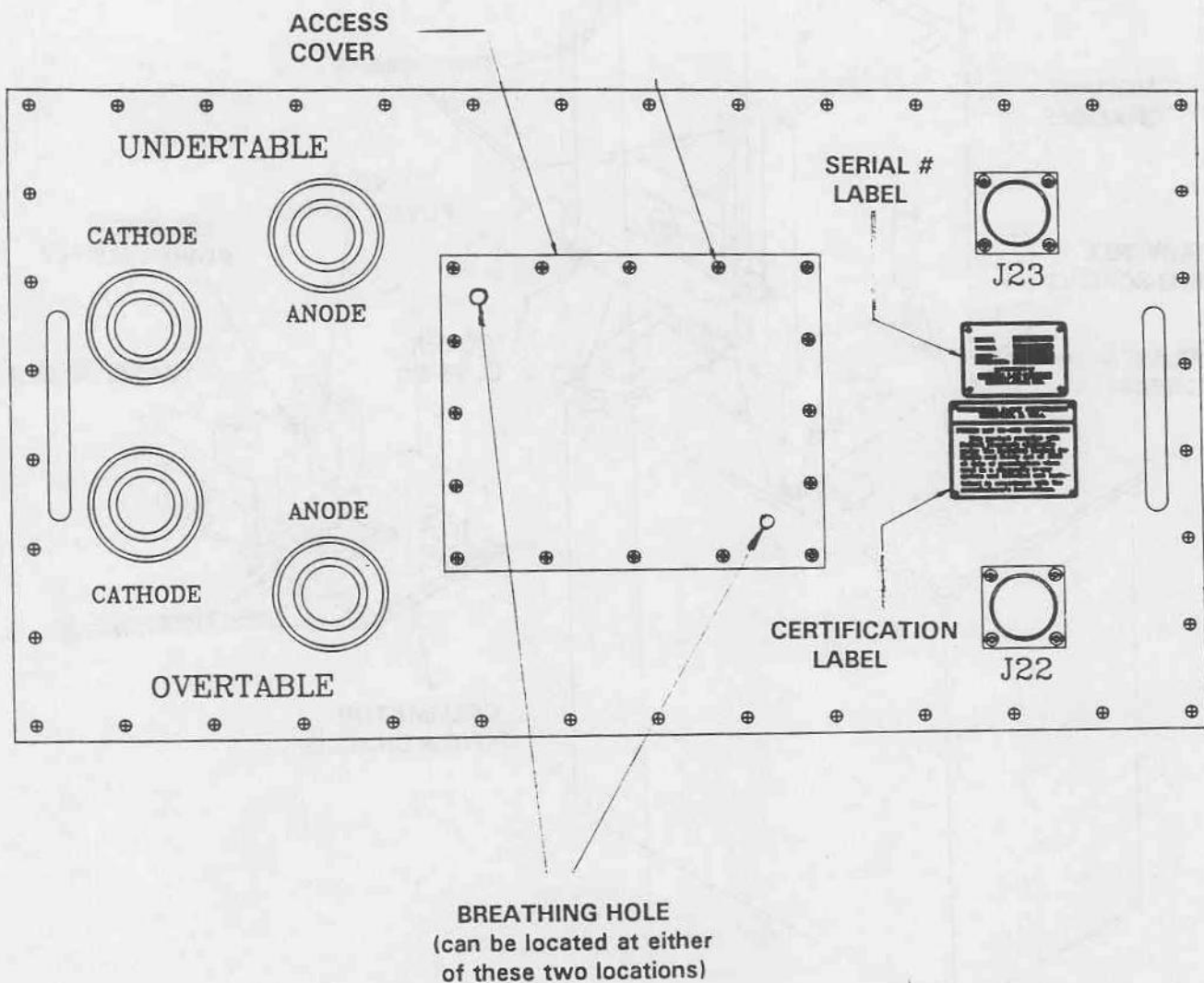


FIGURE 2-1 HIGH VOLTAGE TRANSFORMER TOP

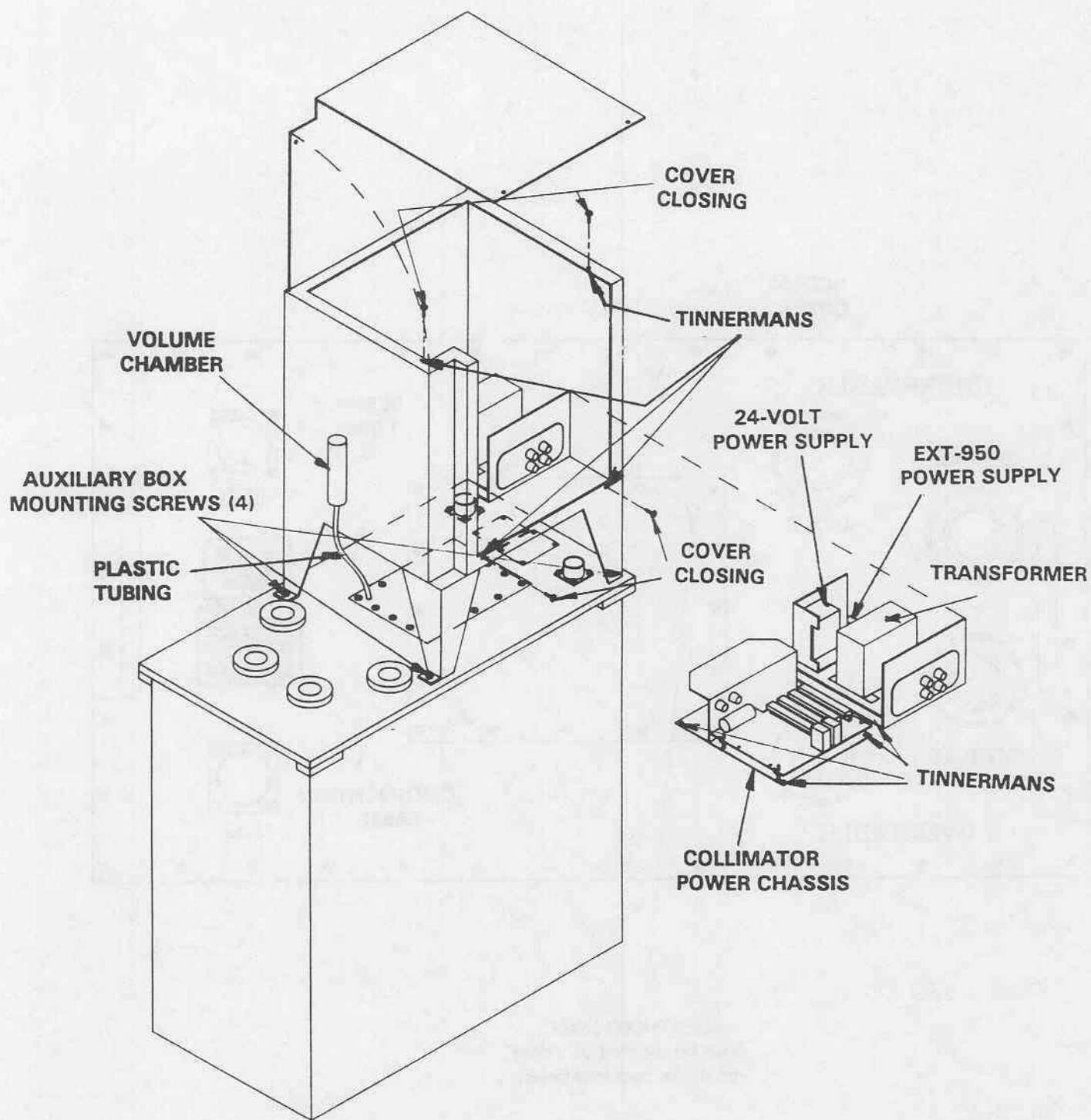


FIGURE 2-2 AUXILIARY BOX

2.4 ADD LOCKING HARDWARE ON PLUGS J22 AND J23

See **FIGURE 2-1**. The 123.4082.20, #8 split lockwasher is required. This step adds a layer of silicone adhesive under the J22 and J23 gaskets, to prevent oil leaking.

To prevent oil from leaking out while the gasket is removed to perform this step, it is helpful to tilt the tank slightly. To tilt, loosen the four bolts holding the transformer tank to the base plate. Remove the two front bolts (on the same side as J22 and J23) completely. Wedge a large screwdriver under the tank on the J22 and J23 jacks side, tilting the tank slightly, and tilting the oil away from the J22 and J23 plugs.

The mounting plates under the J22 and J23 plugs are held in place with four phillips screws. Remove the four screws on J22. Grasp the plug and all connecting parts down to the gasket, and carefully lift up.

Squeeze a layer of silicone adhesive to the under side of the gasket. Position the gasket back in place. Put another layer of silicone on the top of the gasket. Before replacing each screw, add one #8 split lockwasher. Repeat the same procedure with J23.

Remove the wedge, and re-tighten all base plate bolts.

2.5 ADD SILICONE ADHESIVE UNDER HIGH VOLTAGE TANK LABELS

Using a small phillips screwdriver, remove the four screws holding the "Serial Number" label in place (see **FIGURE 2-1**). Add a drop of silicone adhesive to each screw and carefully replace.

Repeat the same process with the four screws holding the "Certification" label in place.

2.6 AUXILIARY BOX MOUNTING HARDWARE ON HIGH VOLTAGE TANK

The parts required for this step are:

123.1110.20	#10 flat steel washer
126.2101.0570	10B x 5/8 pan head screw
191.3242.2031	10AB type U tinnerman nut

The auxiliary box is mounted to the top of the high voltage tank with four screws. Two screws near the J22 and J23 connectors do not have a nut on the underside of the screw. The other two screws do have a nut on the under side of the screw.

Begin with the two screws without a nut. Remove one of the screws. Thread one of the socket head cap screws first with the lockwasher, then with the flat washer. Replace the screw just removed with this set of hardware, tightening with an allen wrench.

Replace the other screw without a nut in the same fashion. Then replace the two screws with a nut in the same fashion, positioning the same nut back in place.

2.7 MOUNT COLLIMATOR POWER CHASSIS IN AUXILIARY BOX

See FIGURE 2-2. Parts needed for this step are:

123.1110.20	#10 flat steel washer
126.2101.0570	10B x 5/8 pan head screw
191.3242.2031	10AB type U tinnerman nut

Open the auxiliary box by removing four screws, two on the top of the aux box, and two screws on the front. The closure hardware for the aux box will be replaced in Section 2.9.

Using a short phillips screwdriver, remove the four screws on the under side of the auxiliary box that mount the "Linear Collimator Power Chassis" to the bottom. Lift the Power Chassis and remove the tinnermans on the Power Chassis.

Replace the tinnermans with new ones provided (191.3252.3071). Squeeze the tinnermans, as required, with a pliers to provide a tight fit. Replace the screws with the 8B pan head screw and #8 flat head and internal washer. Remount and tighten the Collimator Chassis frame to the bottom of the auxiliary box.

2.8 MOUNT EXT-950 POWER SUPPLY ASSEMBLY

See **FIGURE 2-2**. Parts required for this step are:

123.1110.20	#10 flat washer
123.4082.20	#8 split lockwasher
126.2101.0570	10B x 5/8 screw
191.3242.2031	10AB type U tinnerman nut

Remove the "EXT-950 Power Supply Assembly" from the bottom of the auxiliary box. When the hardware has been removed, gently slide the assembly forward to facilitate access to the back of the assembly. Cabling will prevent the assembly from moving beyond the front of the auxiliary box.

Two large sub-assemblies are mounted on the power supply;

- the transformer
- a 24-volt power supply.

The transformer is secured to the assembly with 4 screws, and the power supply is secured with three screws. Remove the mounting screws.

Thread on the split lockwasher first, then the flat washer to the screw that was there. Before replacing, add a dab of loctite. If the mounting hardware uses washers and lockwashers, it is not necessary to add them, but do add loctite before re-tightening. Re-tighten mounting screws.

Lift the Power Supply Assembly and remove the tinnermans on the assembly.

Replace the tinnermans with the new ones provided (191.3252.3071). Squeeze the tinnermans as required with pliers to provide a tight fit. Replace the screws with an 8B pan head screw and #8 flat head and internal washer. Remount and tighten the Power Supply Assembly frame to the bottom of the aux box.

2.9 REPLACE CLOSURE HARDWARE ON AUX BOX

See **FIGURE 2-2**. The parts required for this step are in a plastic bag marked "Aux Box Closure" and are:

123.1308.20 #8 flat washer
126.2081.0570 8B x 5/8 pan head screw
191.3252.3071 8AB type U tinnerman

In step 2.7, the four screws that close the auxiliary box were unlatched. On the inside, remove the retainers for the hardware with a pliers. Remove the four tinnermans. Position a new tinnerman (191.3252.3071) over each hole. Using pliers, squeeze the tinnerman to tighten to insure a tight fit over hole.

Close the cover. Thread a new screw (126.2081.0570) with a flat washer (123.1308.20). Tighten over tinnermans. Repeat for each of the four screws.

2.10 REPLACE HARDWARE ON CONTROL DOOR HINGE

The parts required for this step are:

126.8080.8570 8-32 x 1/2 thread forming pan head screws

The door to the control is opened by removing two screws on the left side. The door hinge is mounted on the right side. The hinge contains 12 screws connecting the hinge to the control body, and 10 screws connecting the door to the hinge.

Replace all screws, one at a time, with 126.8080.8570, and put a dab of loctite on each screw before replacing.

Verify that the CVT mounting bracket has been replaced (see **Addendum B**). Verify that the fluoro kVp meter has been upgraded (see **Addendum D**).

Close door and replace door screws.

2.11 TABLE CHAIN GUIDE HARDWARE

Parts required for this step are:

124.6420.0861 1/4-20 x 1/2 flat socket head screw

With the table leg covers removed (see **Section 1.3**), move the table foot-end and head-end shipping fixtures to the shipping position to support the table during the following procedures.

See **FIGURE 2-3**. At the foot-end of the table, using a 3/8" allen wrench, turn the chain tension release screw counter-clockwise to release the tension on the chain. Two phillips screws hold the chain connector in place at the foot-end of the chain guide. Remove the screws.

Move the gear reducer drive belt manually, to release the tension on the chain. Disconnect the chain and allow the whole chain to (gently) drop to the floor.

Visible under the chain at the foot-end are five screws that mount the bearing chain guide to the table. Remove the screws, one at a time, and replace with 1/4-20 x 1/2 socket head screws (124.6420.0861) using a 5/32" allen wrench.

Replace the chain connectors in their previous positions. Replace and re-tighten the old screws, adding a dab of loctite on each screw.

At the head-end of the table, remove the two screws that hold the chain connector at the head-end. Drop the chain. Follow the same procedure as the foot-end, replacing the two screws with 1/4-20 x 1/2 socket head screws (124.6420.0861).

Replace the chain connectors, with loctite, as at the foot end. Move the gear reducer drive belt, as needed, to eliminate the slack in the chain, on both sides of the sprocket.

Go to the foot-end, and re-tighten the chain tension release screw. Verify that all slack is eliminated at both ends. Before tightening, verify that all the sprockets are correctly positioned.

NOTE:

Use a torque wrench to apply 11 foot-pounds to the tension screw.

Lower the shipping fixtures. Replace the covers on the table leg.

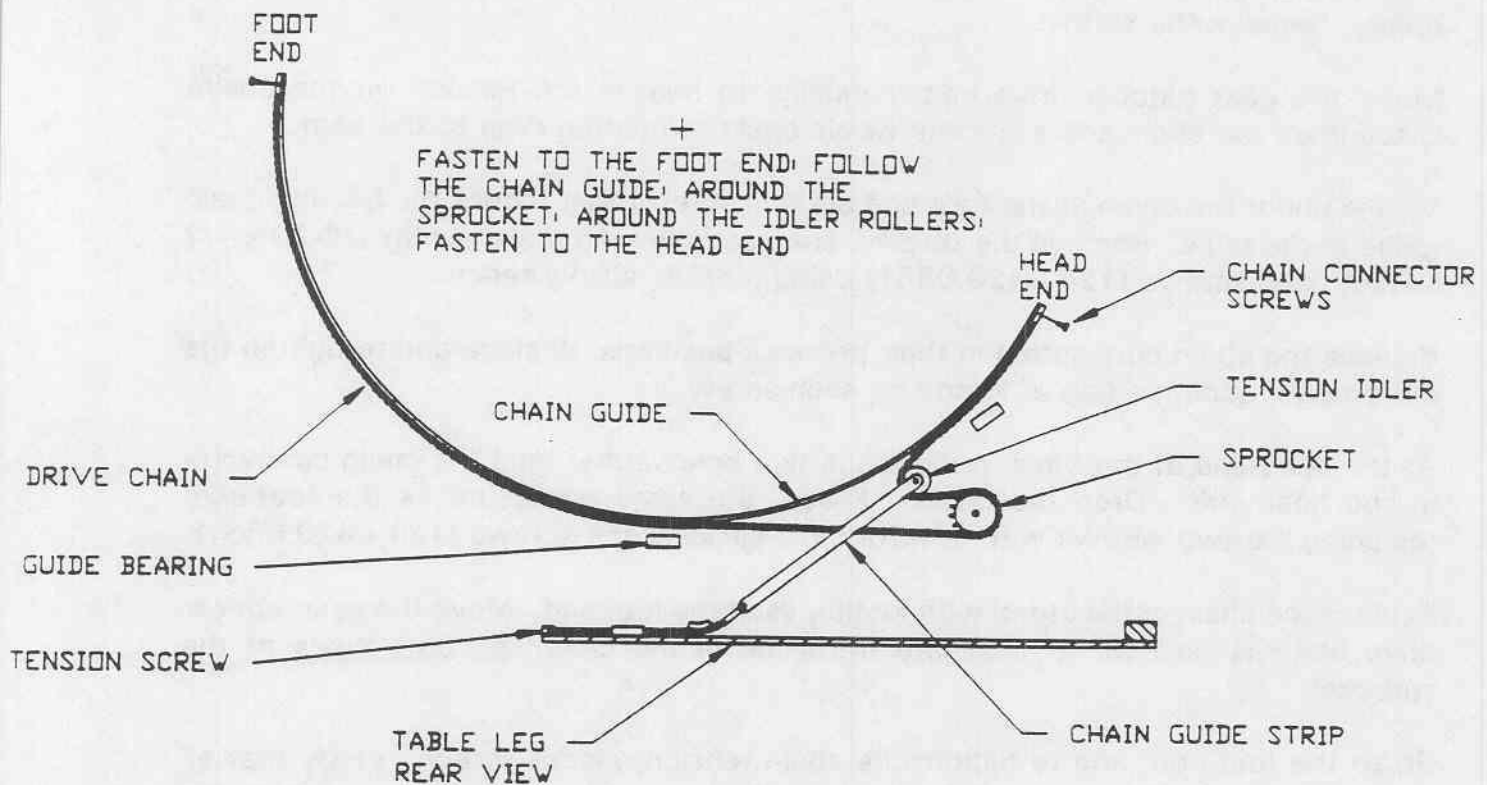


FIGURE 2-3 TABLE TILT DRIVE CHAIN

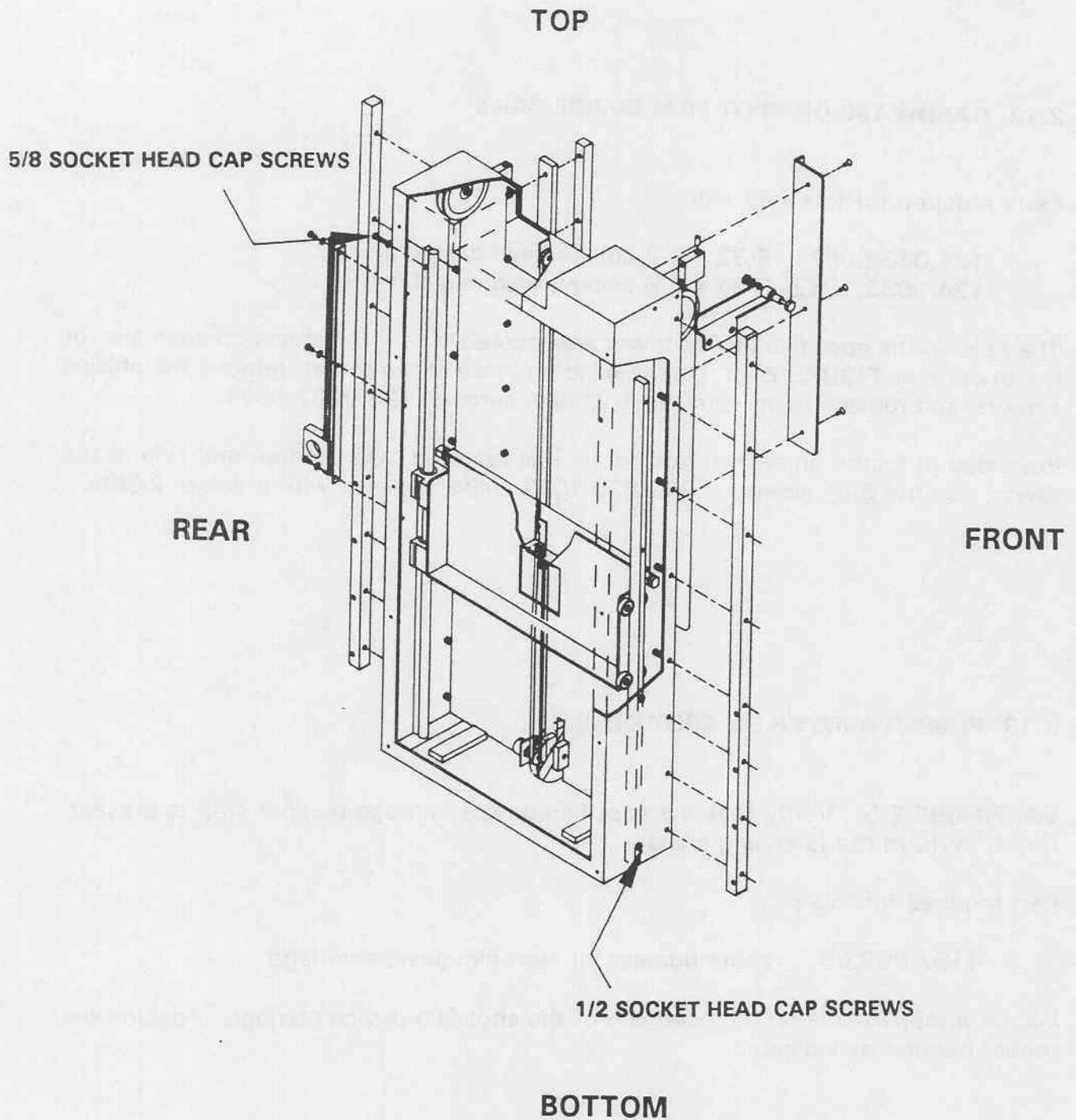


FIGURE 2-4 SPOT FILM DEVICE TOWER

2.12 HARDWARE ON SPOT FILM DEVICE RAILS

Parts required for this step are:

- 124.0832.0871 8-32 x 1/2 socket head cap screw
- 124.0832.1072 8-32 x 5/8 socket head cap screw

The rails on the spot film device tower are secured with four screws on each side of the tower (see **FIGURE 2-4**). On the head-end side of the tower, remove the phillips screws, and replace them with the 1/2" new screws, 124.0832.0871.

Put a dab of loctite on each screw before it is replaced. On the foot-end side of the tower, use the 5/8" screws, 124.0832.1072, replacing also with a dab of loctite.

2.13 RUBBER BUMPER ON SPOT DEVICE

See **FIGURE 2-5**. Verify that the spot film device carriage bumper stop is present. If not, perform the following steps:

Part required for this step is:

- 4167.062.06 rubber bumper for spot film device carriage

Locate a tapped hole on the head end of the spot film device carriage. Position the rubber bumper as indicated.

2.14 REPLACE TABLE TOP DRIVE BOARD

CAUTION:

Be sure power is off before proceeding!

See **FIGURE 2-6** - note that the illustration is "upside down"! With both the table top and sub top removed, locate the table tilt drive PCB (5284.062.04) inside the table at the foot end.

Disconnect both edge connectors from the 5284.062.04 PCB. Disconnect four "quick disconnect" connectors (female spade connectors). Remove the four screws holding the PCB, using a phillips screwdriver. Discard the screws. Return the old PCB to:

Continental X-Ray Corporation
2000 South 25th Avenue
Broadview, IL 60153

Using a phillips screwdriver, remove the two phillips screws that hold the top drive support bracket on the PCB. Remove the cable clamp located near the gearbox, that secures the multi-conductor cable to the cam switch assembly. Discard the mounting screw, and save the other hardware. Discard the bracket.

Place the new PCB (5284.062.0401) in the same position, and re-attach in the same manner. Reconnect all edge connectors and the four connectors, matching designations, to the two mercury table tilt switches.

Secure the cable clamp to the side of the PCB mounting bracket with the 8-32 screw (provided).

See **ADDENDUM F**. Locate the two Maintenance Manuals for the iso shelter. Locate Volume II, Chapter 7., TABLE. Replace pages 4-6 and 4-7, in both manuals, with the updated parts lists and schematics in Addendum F.

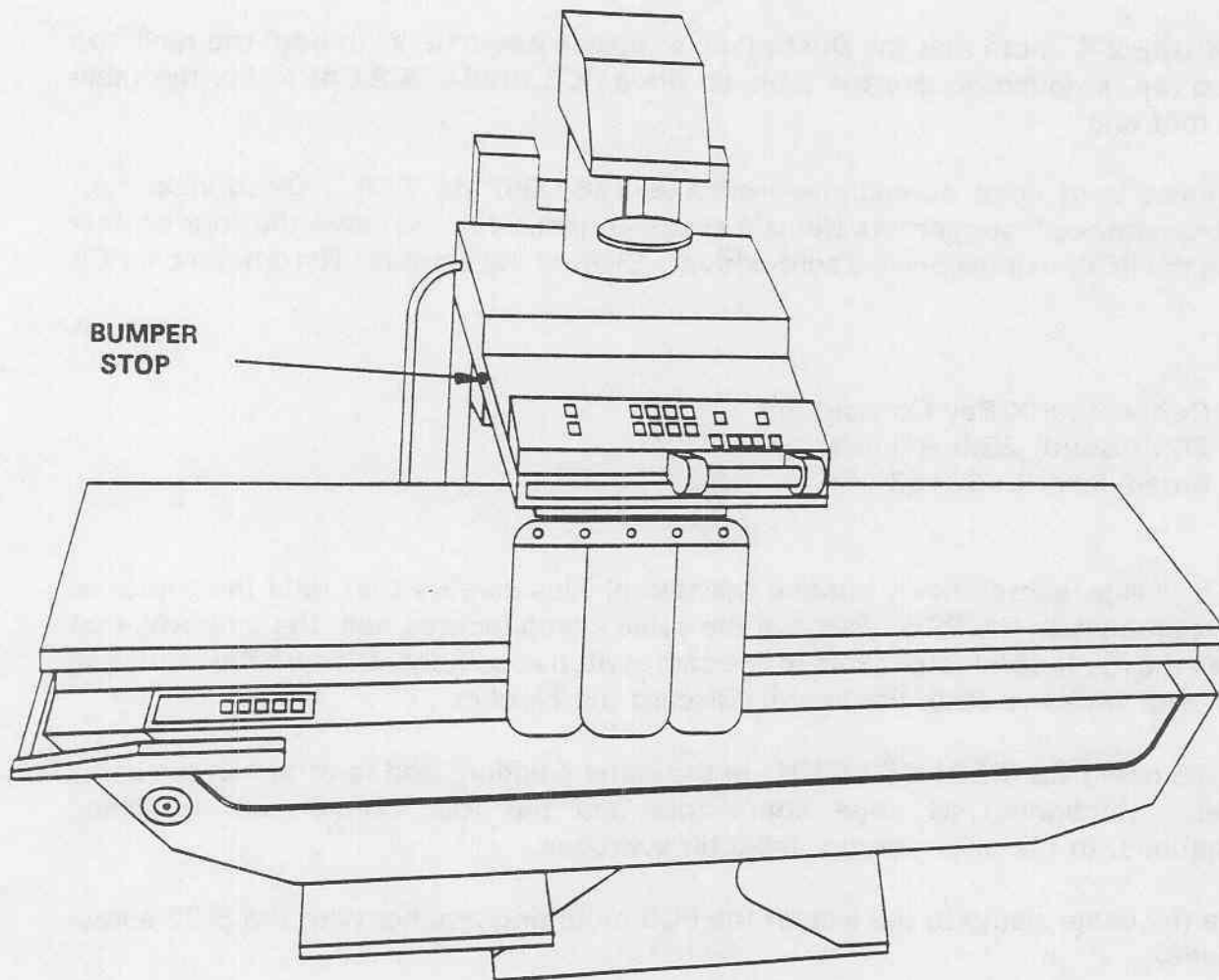


FIGURE 2-5 SPOT FILM BUMPER STOP

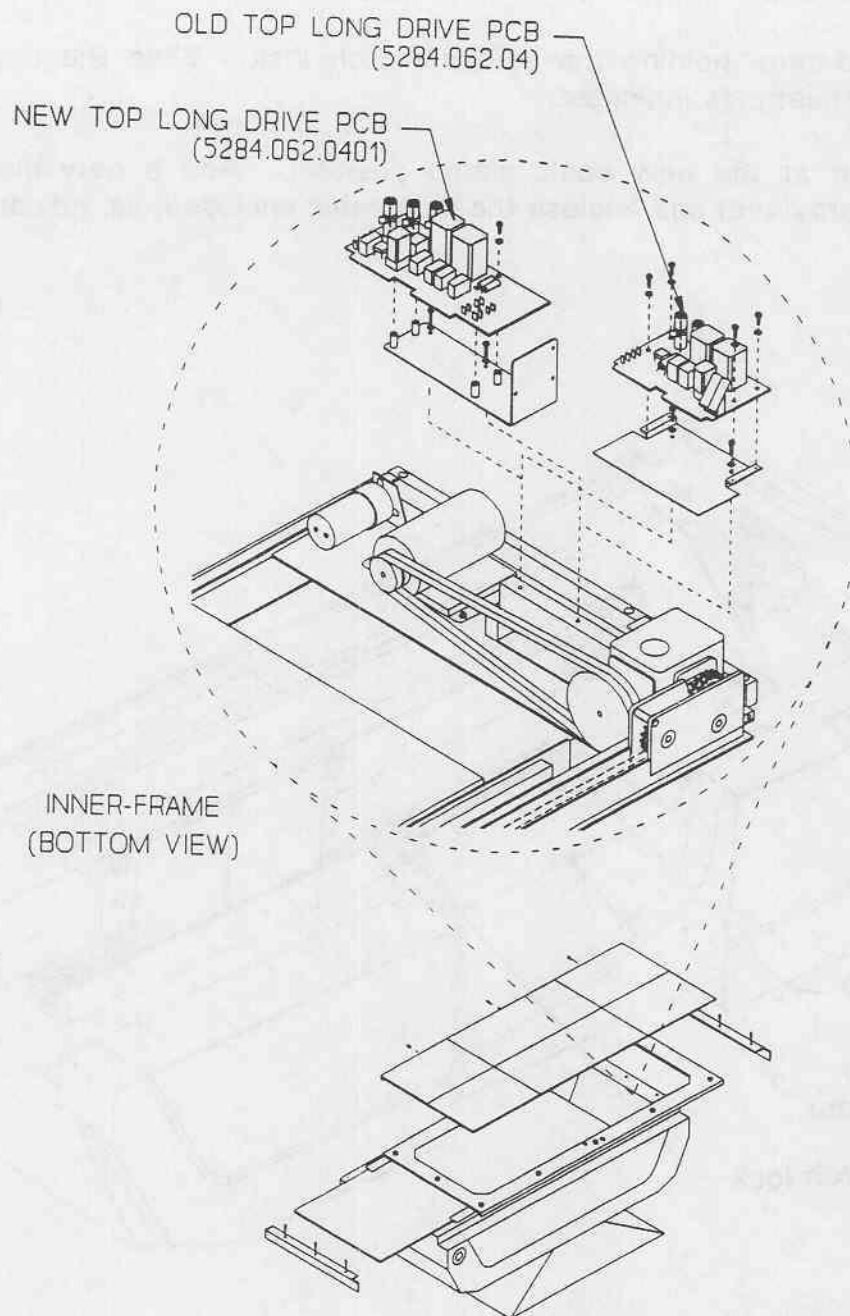


FIGURE 2-6 REPLACE TILT DRIVE BOARD IN TABLE

2.15 MOVE CABLE IN TABLE BOTTOM

See **FIGURE 2-7**. Loosen the cable clamp marked "original position". Remove the long cable from the clamp and replace with only the short cable enclosed.

Loosen the two nuts holding the safety switch lock. Slide the cable out and reposition underneath, as indicated.

Remove the nut at the new cable clamp position. Add a new clamp (part # 4175.009.01, provided) and enclose the long cable enclosed, as indicated.

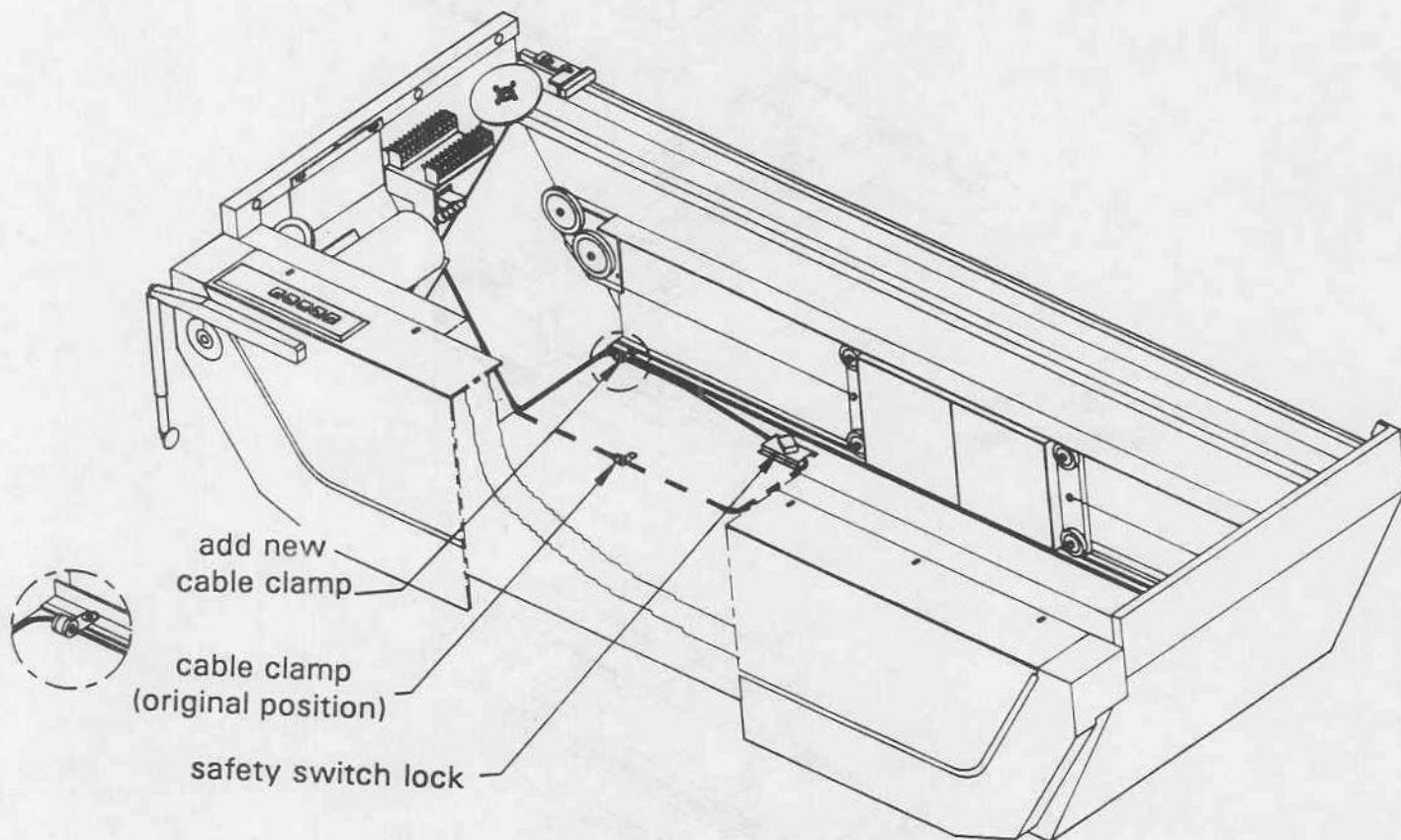


FIGURE 2-7 POSITION CABLE IN TABLE BOTTOM

ADDENDUM A

Bills of Material for Shipping Fixtures

CS-8952 RETROFIT SHIPPING FIXTURES
CONTINENTAL X-RAY CORPORATION
INSTRUCTION MANUAL 9023.407

Parts List for: 5536.873.01 Page 1 of 1
Table Head End Shipping Support Asm

Part Number	Description	Quantity
-----	-----	-----
1. 122.1813.0720	1/2-13 Lock Nut	3 EA
2. 123.1114.20	9/32ID 5/800 1/16Thk Stl SAE Washer	2 EA
3. 123.4142.20	1/4 Medium Pattern Split Lockwasher	2 EA
4. 123.4182.20	1/2 Medium Pattern Split Lockwasher	1 EA
5. 124.0832.0617	8-32 x 3/8 Headless Ball Plunger	8 EA
6. 124.6428.1242	1/4-28 X 3/4 Socket Head Cap Screw	2 EA
7. 124.6518.1072	5/16-18 X 5/8 Button Hd Socket Scrw	4 EA
8. 124.6820.2842	1/2-20 X 1-3/4 Socket Hd Cap Screw	4 EA
9. 127.6060.30	3/8x 3/8 (5/16-18 Thd)Shoulder Bolt	2 EA
10. 127.6101.40	5/80x3-1/2 Stripper Bolt(1/2-13THD)	2 EA
11. 127.6103.20	5/80x4" Stripper Bolt(1/2-13THD)	1 EA
12. 4124.873.01	Toggle Screw Pad Spacer	2 EA
13. 4124.873.02	1/2-13 Thd 5"L Steel Handle	1 EA
14. 4134.873.01	1/2-13 Thd Tilt-Easy Toggl Scrw Pad	2 EA
15. 4136.873.02	5/8-11 Thd Full Travel Sprng Plngr	2 EA
16. 4174.873.02	1/2-13x2-1/2 Stl Swing Bolt	2 EA
17. 4214.873.01	ISO Shltr Shpng Fixture Handle	2 EA
18. 4229.873.01	ISO Shelter Shpng Fixture Left Lock	1 EA
19. 4229.873.10	ISO Shltr Shpng Fixture Link Long	1 EA
20. 4229.873.11	ISO Shltr Shpng Fixture Link Shrt	1 EA
21. 9442.873.01	ISO Shltr Shpng Fixture Lock Adjust	1 EA
22. 9542.873.01	ISO Shltr Shpng Fixture Flr Frm,Lft	1 EA
23. 9542.873.02	ISO Shltr Shpng Fxture Sprrt Frm,Lft	1 EA

* * * END * * *

Parts List for: 5536.873.02 Page 1 of 1
Table Foot End Shipping Support Asm

Part Number	Description	Quantity
-----	-----	-----
1. 122.1813.0720	1/2-13 Lock Nut	1 EA
2. 123.4182.20	1/2 Medium Pattern Split Lockwasher	1 EA
3. 124.0832.0617	8-32 x 3/8 Headless Ball Plunger	8 EA
4. 124.6518.1072	5/16-18 X 5/8 Button Hd Socket Scrw	4 EA
5. 124.6820.2842	1/2-20 X 1-3/4 Socket Hd Cap Screw	3 EA
6. 127.6102.20	5/80x2-3/4 Stripper Bolt(1/2-13THD)	1 EA
7. 127.6103.60	5/8x4-1/2 Stripper Bolt(1/2-13THD)	1 EA
8. 4124.873.01	Toggle Screw Pad Spacer	2 EA
9. 4124.873.02	1/2-13 Thd 5"L Steel Handle	1 EA
10. 4134.873.01	1/2-13 Thd Tilt-Easy Toggl Scrw Pad	2 EA
11. 4136.873.02	5/8-11 Thd Full Travel Sprng Plngr	2 EA
12. 4174.873.02	1/2-13x2-1/2 Stl Swing Bolt	2 EA
13. 4214.873.01	ISO Shltr Shpng Fixture Handle	2 EA
14. 9542.873.03	ISO Shltr Tbl Sprrt Sprrt Frame, Right	1 EA
15. 9542.873.04	ISO Shltr Shpng Fixture Flr Mtg Plt	1 EA

* * * END * * *

Parts List for: 5536.873.03 Page 1 of 1
Misc.Table Iso Shltr Shipping Parts

Part Number	Description	Quantity
1. 123.1115.20	11/32Id 11/16Od 1/16T Stl Sae Washr	4 EA
2. 123.1116.20	13/32Id 13/16Od 1/16T Stl Sae Washr	2 EA
3. 123.1310.20	.204ID .438OD .032T Mach Scrw Washr	2 EA
4. 123.4102.20	#10 Medium Pattern Split Lockwasher	2 EA
5. 123.4152.20	5/16 Medium Pattern Split Lockwasher	4 EA
6. 124.6032.2072	10-32x1-1/4 Button Head Cap Scrw	2 EA
7. 124.6428.2072	1/4-28x1-1/4 Button Hd Sckt Screw	5 EA
8. 124.6518.1072	5/16-18 X 5/8 Button Hd Socket Scrw	2 EA
9. 124.6518.2442	5/16-18 X 1-1/2 Socket Hd Cap Screw	2 EA
10. 4113.474.06	1.918 X 1/4 Aluminum Roller	2 EA
11. 4139.873.07	1/4D 1-1/2GL PB Quick Release Pin	1 EA
12. 4165.873.01	3" X 1" Adhesive-back Velcro Hook	1 EA
13. 4165.873.02	3" X 2" Adhesive-back Velcro Loop	1 EA
14. 4167.062.06	.30"H x .81SQ Self Adhesive Bumper	1 EA
15. 4175.009.01	3/16 Inch Cable Clamp	1 EA
16. 4229.009.10	Answrth Laterl Carriage Guide Track	1 EA
17. 4447.873.02	ISO Shltr Shong Fixture Z-Bracket	1 EA
18. 5197.873.01	Table Body Long Lat Carg Brkt Asm	1 EA
19. 5197.873.02	Table Body Main Cwt Cam Bar Asm	1 EA
20. 5197.873.03	Table Body Cntrwght Support Bar Asm	1 EA
21. 5197.873.05	Table Body Grid Shipping Lock Asm.	1 EA

* * * END * * *

Parts List for: 5536.873.04 Page 1
Tubestand Iso Shelter Shipping Parts

Part Number -----	Description -----	Quantity -----
1. 122.1624.01	3/8-24 Elastic Stop Nut	2 EA
2. 123.1114.20	9/32ID 5/8OD 1/16Thk Stl SAE Washer	4 EA
3. 123.1116.20	13/32Id 13/16Od 1/16T Stl Sae Washr	4 EA
4. 123.4142.20	1/4 Medium Pattern Split Lockwasher	4 EA
5. 123.4162.20	3/8 Medium Pattern Split Lockwasher	4 EA
6. 124.1420.0421	1/4-20 X 1/4 Sckt Hd Set Scw Cup Pt	1 EA
7. 124.6428.2442	1/4-28 X 1-1/2 Socket Head Cap Scrw	4 EA
8. 124.6616.1442	3/8-16 X 7/8 Socket Head Cap Screw	4 EA
9. 124.6624.3212	3/8-24 X 2 Hex Head Cap Screw	2 EA
10. 220.1204.8120	3/4 ID x3/4L Head Drill Jig Bushing	1 EA
11. 4120.873.02	Iso S/S/F T/S Vrtcl Carg Plngr Blk	1 EA
12. 4132.873.01	13/32 ID 3/4 OD 13 Ga Steel Washer	4 EA
13. 4139.873.01	3/40 T-Hndl Sngr Actng Ball Lck Pin	1 EA
14. 4139.873.05	3/64"OD 6"L Type 3 Steel Cable	1 EA
15. 4165.873.01	3" X 1" Adhesive-back Velcro Hook	4 EA
16. 4165.873.02	3" X 2" Adhesive-back Velcro Loop	2 EA
17. 4174.873.01	3/4-16 Male Thread Rod End Linkage	1 EA
18. 4229.873.02	Tubestnd Shipping Fixture Top Mount	1 EA
19. 4241.873.01	Iso Shelter T/S Main Frm LH Flr Bkt	1 EA
20. 4241.873.02	Iso Shelter T/S Main Frm RH Flr Bkt	1 EA
21. 4429.873.06	ISO Shltr Shngg Fixture Ceiling Plt	1 EA
22. 5136.873.01	Tube Arm Extension Shipping Lock Asm	1 EA
23. 5197.873.08	Tubestand Base Plunger Asm	1 EA
24. 5197.873.09	Tubestand Vertical Carg Plunger Asm	1 EA
25. 5197.873.10	Tubestand HV Cable Support Asm	1 EA

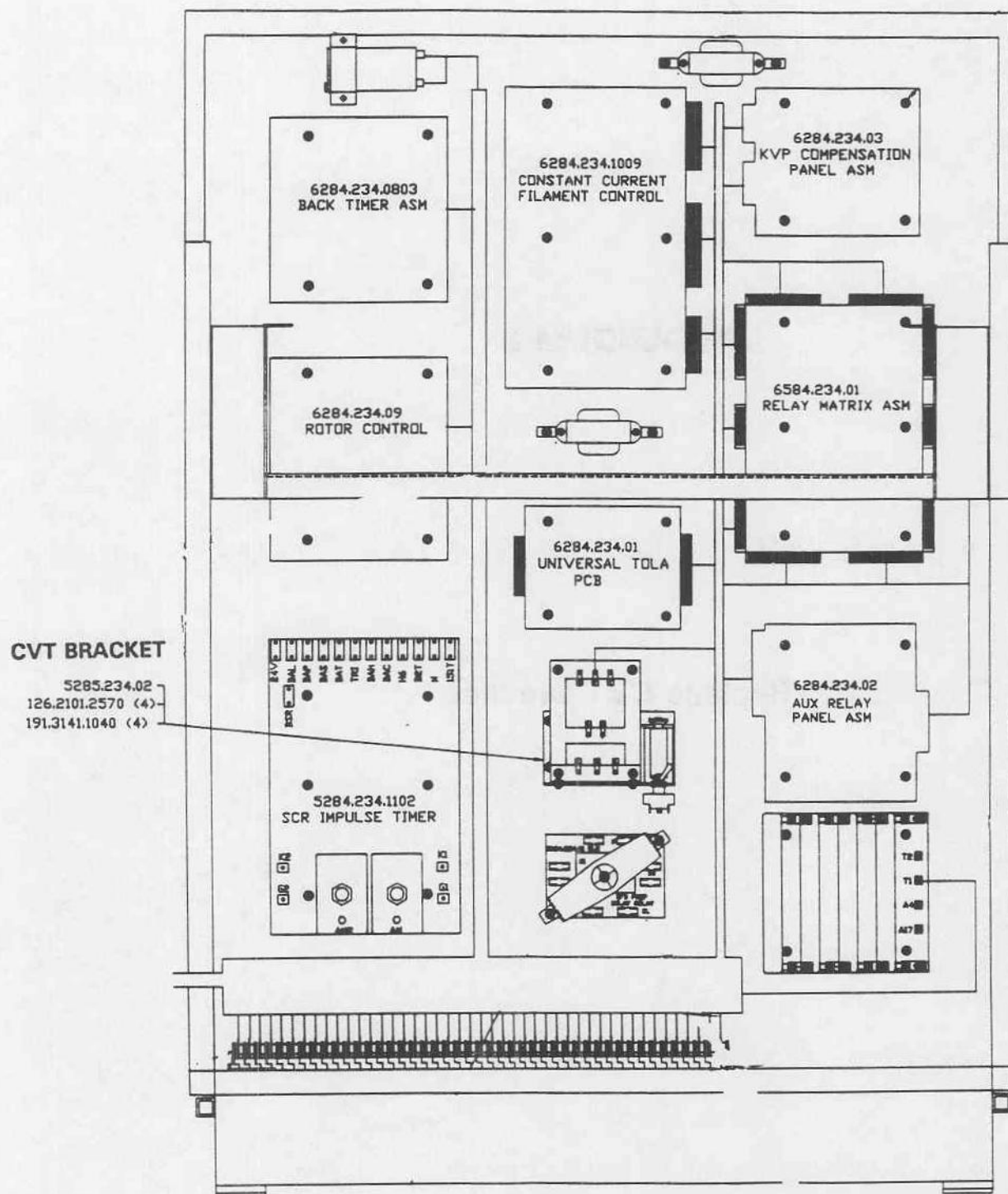
Parts List for: 5197.873.01 Page 1 of 1
Table Body Long Lat Carg Brkt Asm

Part Number	Description	Quantity
-----	-----	-----
1. 121.0632.0657	6-32 X 3/8 Pan Steel Phillips Screw	8 EA
2. 122.1518.22	5/16-18 Double Chamferd Stl Hex Nut	2 EA
3. 123.1306.20	.150ID .375OD .032T Mach Scrw Washr	6 EA
4. 123.4062.20	#6 Medium Pattern Split Lockwasher	8 EA
5. 124.1518.2421	5/16-18 X 1-1/2 Sckt Hd St Scrw Cup	2 EA
6. 124.6518.2042	5/16-18 X 1-1/4 Socket Hd Cap Screw	2 EA
7. 291.5030.50	3 X 5 Cloth Parts Bag	2 EA
8. 4139.873.02	1/20 T-Hndl Sngl Actng Ball Lck Pin	1 EA
9. 4139.873.06	3/64"OD 12"L Type B Steel Cable	1 EA
10. 4240.873.01	Mil Table HV Cable Guard Mtg Strip	1 EA
11. 4459.873.01	Military Table HV Cable Guard	1 EA
12. 9342.873.01	Mil Tbl Long Lat Carg Shipping Fxtr	1 EA

* * * END * * *

ADDENDUM B

Replace CVT Bracket



LOCATION FOR CVT MOUNTING BRACKET REPLACEMENT

CS-8952 FIELD DEPLOYABLE X-RAY SYSTEM
CONTINENTAL X-RAY CORPORATION
SYSTEM MAINTENANCE MANUAL 9023.400

Part Number -----	Description -----	Quantity -----
1. 121.0632.0817	6-32 X 1/2 Round Steel Philips Screw	1 EA
2. 121.0832.4017	8-32 X 2-1/2 Round Steel Phlp Screw	2 EA
3. 122.0632.22	6-32 Double Chamfered Hex Steel Nut	1 EA
4. 123.2208.11	.171 ID .500 OD .070Thk.Brass Wash.	2 EA
5. 123.6060.20	#6 Internal Tooth Steel Lockwasher	2 EA
6. 129.5120.6511	1/8 X 3/16 Brass Eyelet	2 EA
7. 135.5401.	GE SR900 Silicone Conformal Coating	.01 GL
8. 4118.122.02	8-32 X 7/16 Fh A Rivnut	2 EA
9. 4141.060.18	Top Drive Mercury Switch Mtg Brckt	1 EA
10. 4153.222.04	Slide Band & Knob Asm, 25W, 50W Res	1 EA
11. 4175.328.01	1/2 Inch Cable Clamp	2 EA
12. 4181.216.03	5 Amp 115 Volt SPST Mercury Switch	2 EA
13. 4182.011.03	.250 X .032 T PCB Disconnect Tab	4 EA
14. 4284.062.04	MXT 90/15 Power Top Drive PC Blank	1 EA
15. 714.2271.23	DPDT 120 VAC Control Relay	2 EA
16. 714.3371.15	3PDT 10 Amp 11 Contct Plug-in Relay	2 EA
17. 714.4371.1221	4PDT 120 Volt AC Mini Relay	1 EA
18. 714.9001.	4PDT Mini Relay PC Socket	1 EA
19. 714.9002.	Relay Hold-Down Spring	1 EA
20. 714.9004.	11 Contact PC Socket	2 EA
21. 752.3256.21	1R 25W 5% Fixed WW Low T/C Resistor	1 EA
22. 753.3251.25	5.00 R 25 W WW Adj Low T/C Resistor	1 EA
23. 771.1612.1425	12 Mfd 250 Volt Elcycr Capacitor	2 EA
24. 781.3605.6008	6A 600 PIV Silicon Bridge Rectifier	1 EA

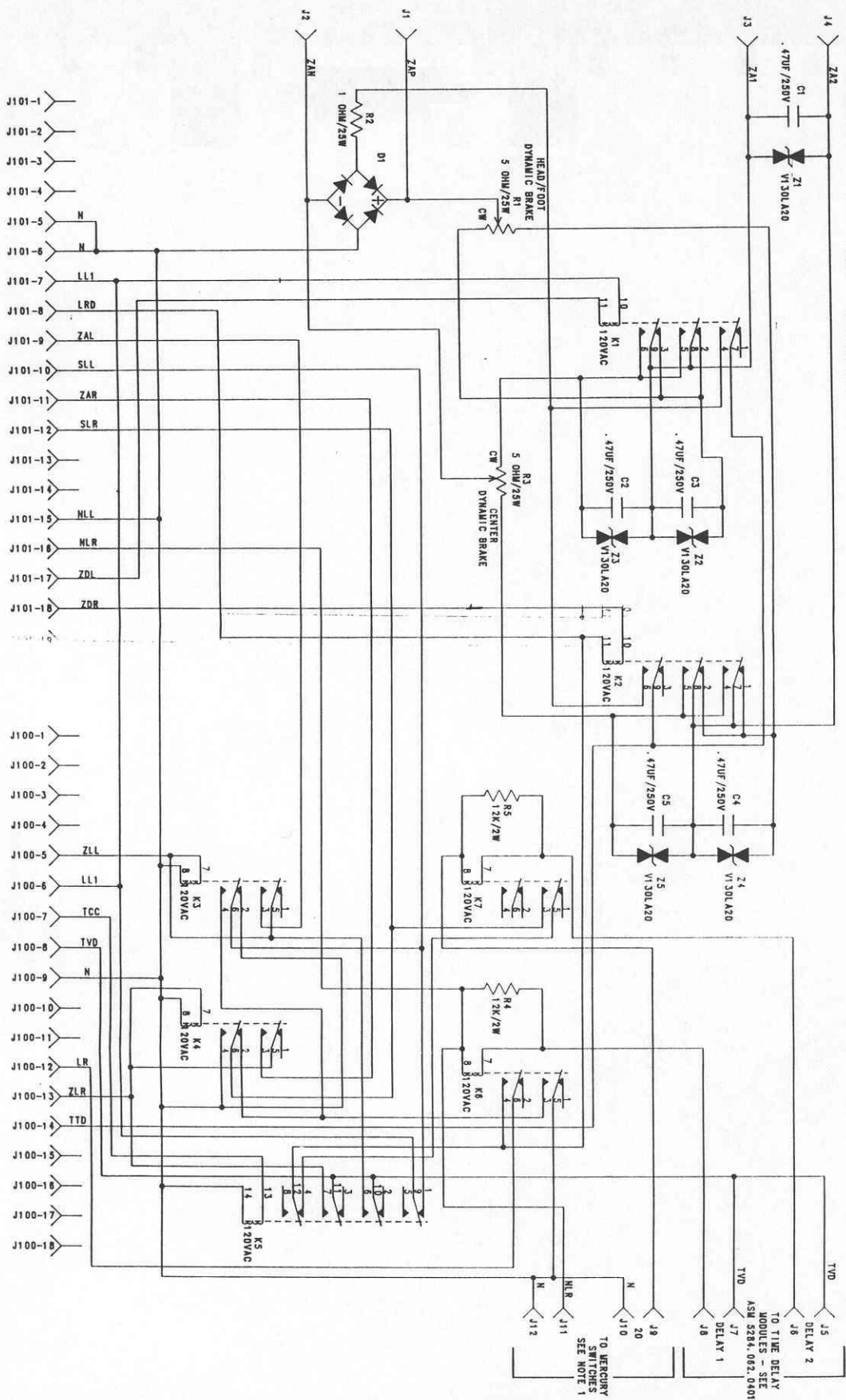
TABLE 4-2 PARTS LIST FOR 5284.062.0401 POWER TOP LONG. DRIVE PANEL ASM

9175

NOTE 2: FOR ASSEMBLY DRAWING SEE 5284.062.0401

NOTE 1: J9 AND J10 CONNECT TO MERCURY SWITCH SW2 ON ASSEMBLY 5284, 062, 040 WHICH OPERATES WITH TABLE TILTS 20° TO RIGHT

J11 AND J12 CONNECT TO MERCURY SWITCH SW1 ON ASSEMBLY 5284.062.040 WHICH OPENS WHEN TABLE TILTS 3° TO RIGHT



ADDENDUM C

Shipping Fixture Labels Positioning

SHIPPING FIXTURE LABEL POSITIONING

1. and 2. the end of the transverse arm of the tubestand, indicating the locking bolt
3. on the tubestand column, where the spring-loaded pin locks the vertical position of the tube arm
4. on the tube arm, as appropriate
5. on the sub-top (barium shield) of the table
6. and 7. as appropriate, one on the table grid cabinet, and one on the frame

1.



3.



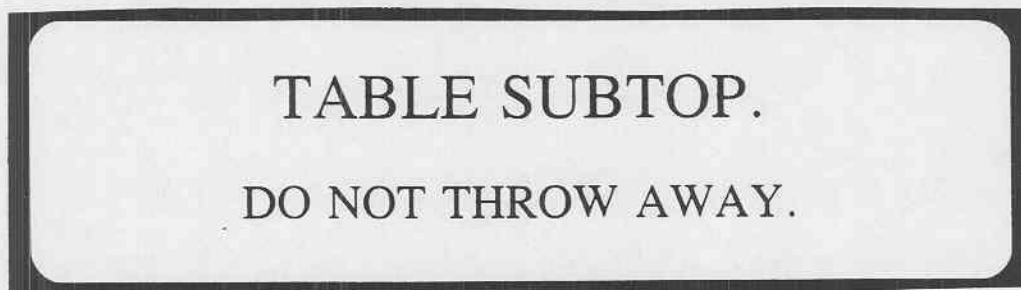
2.



4.



5.



6.



7.



ADDENDUM D

Reposition kVp Fluoro Meter

**PROCEDURE TO REPOSITION
FLUORO KVP METER SHUNT BOARD
FOR MXR-350 GENERATOR,
CS-8952 FIELD DEPLOYABLE X-RAY SYSTEM.
(Refer to attached drawings)**

Turn power OFF.

Open MXR-350 generator control cabinet. Fluoro kVp meter shunt assembly (part number 5184.234.09) is located on the upper right corner of the door of the control cabinet (looking from inside).

Refer to the attached drawings and the attached Replacement Parts Kit list.

STEP 1:

- Unscrew two (2) hex nuts and remove fluoro kVp meter pcb assembly.

STEP 2:

- Replace two (2) hex nuts to secure the meter.
- Apply RTV paste (supplied) on the two connection pins on the bottom of the meter, indicated on the drawing.

STEP 3:

- Attach pcb assembly to the 4141.231.01 bracket. Bracket and hardware are supplied in Replacement Parts Kit.
- Unscrew two (2) hex nuts on the bottom of the fluoro meter panel that attach panel to back of control cabinet door.
- Install bracket with the kVp meter shunt board and replace the nuts.

STEP 4:

- Apply RTV paste to two (2) rivets on the top of the pcb.
- Insulate unused terminals with heat-shrink tubing (supplied).

NOTE:

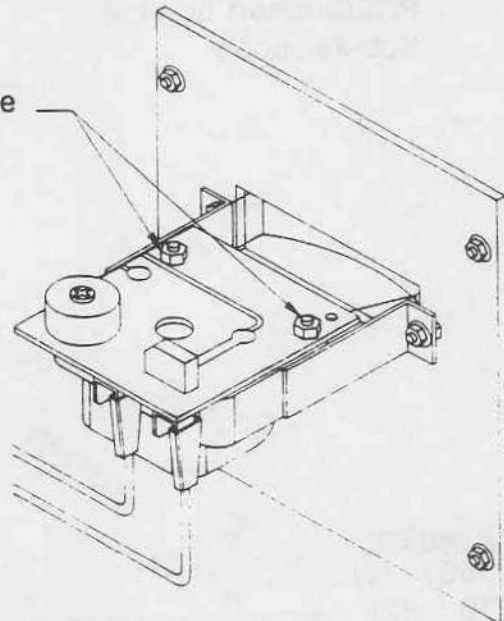
Let RTV cure for approximately 1 hour before turning system ON.

The Replacement Parts Kit consists of:

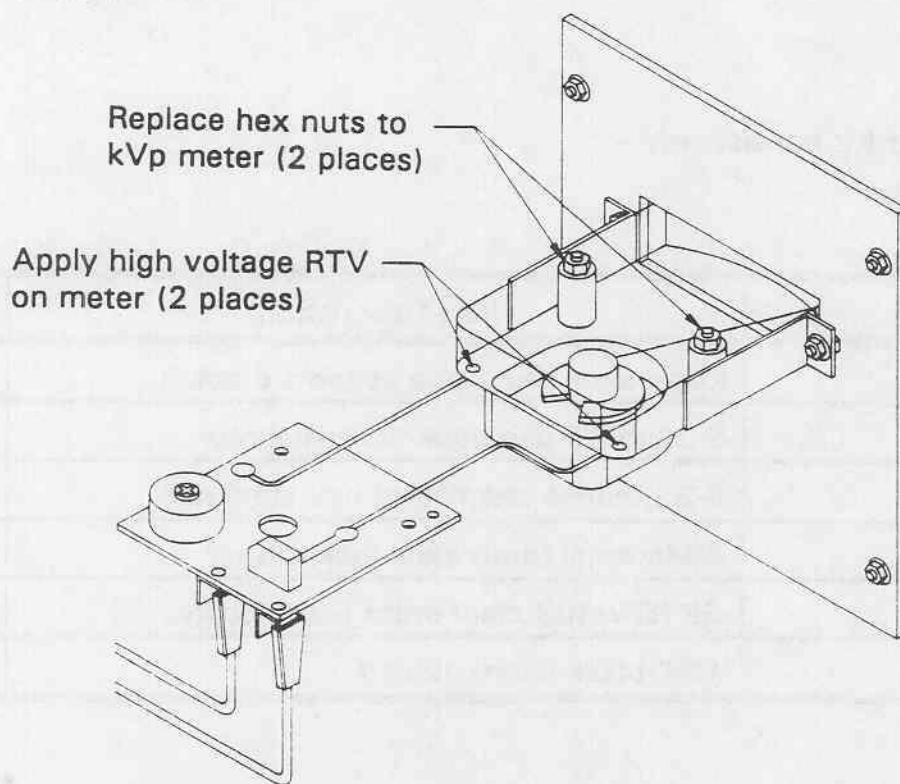
Part Number	Part Description	Quantity
4141.234.01	kVp meter shunt pcb support bracket	1
121.0632.0557	6-32x5/16 pan steel phillips screw	3
122.0632.22	6-32 double chamfered hex steel nut	3
123.6060.20	#6 internal tooth steel lockwasher	3
135.5403	GE RTV-108 clear stdrd grade paste	1 tube
135.3301.6002	1/4" black shrink tubing	1"

Step 1. kVp Meter Shunt Panel Assembly
prior to modification

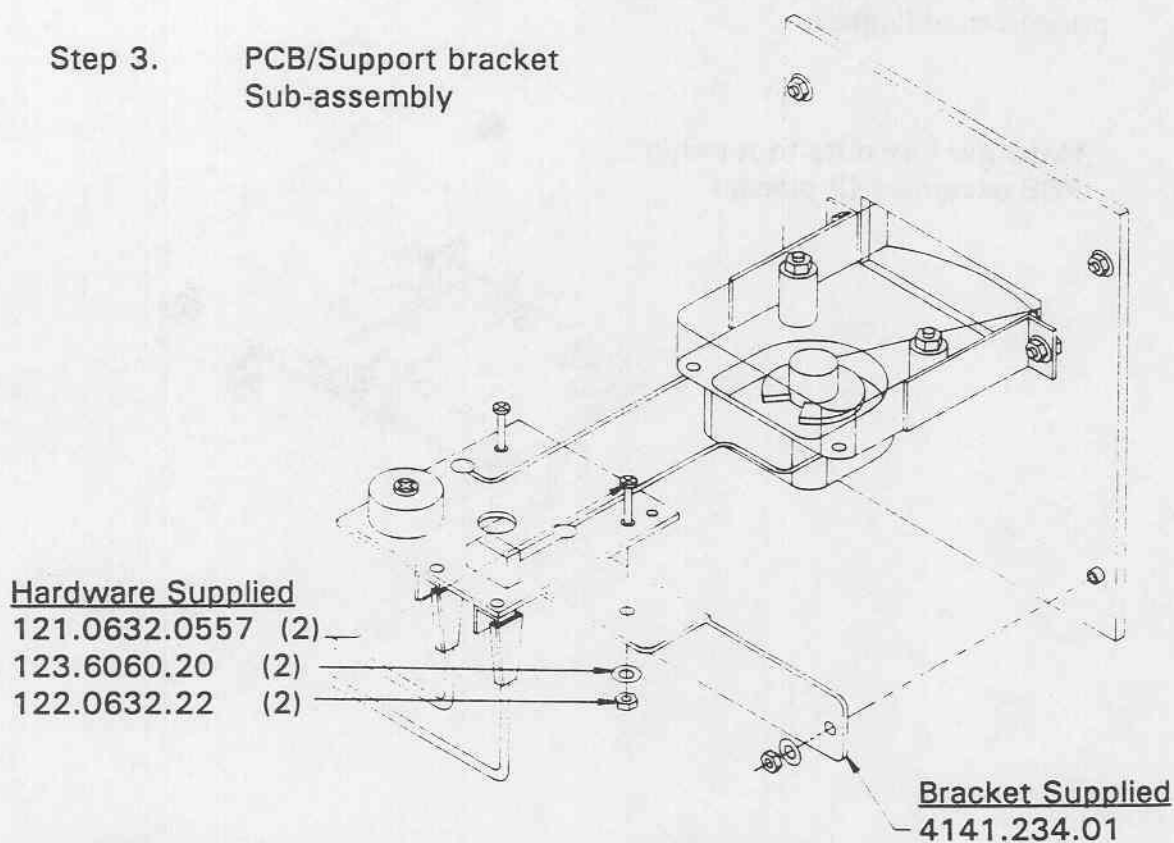
Unscrew hex nuts to remove
PCB assembly (2 places)



Step 2. PCB Removal



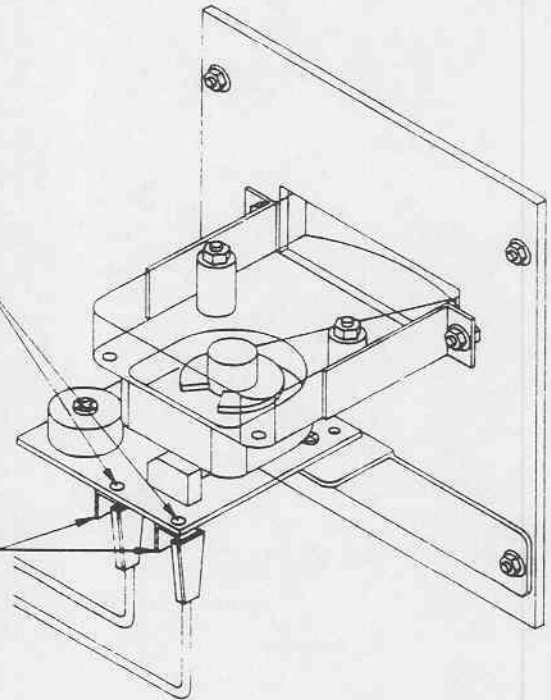
Step 3. PCB/Support bracket Sub-assembly



Step 4. Modified kVp Meter Shunt
Panel Assembly

Apply high voltage RTV
on meter (2 places)

Terminals to be insulated
with heat-shrink tubing
(supplied)



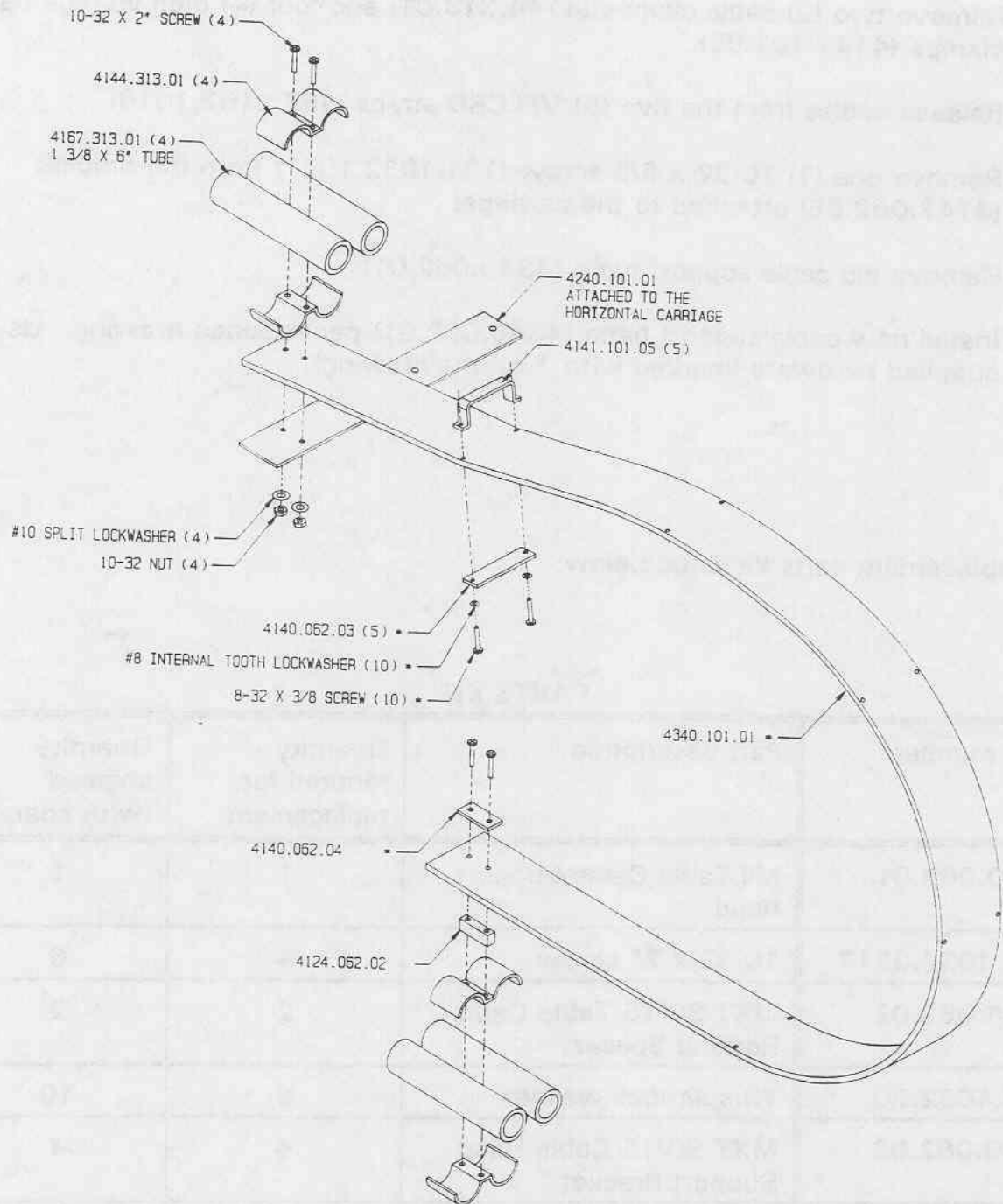
PROCEDURE FOR TUBESTAND CABLE SUPPORT BAND REPLACEMENT:

1. Remove two (2) cable clamps (4144.313.01) and five (5) high voltage cable clamps (4141.101.05).
2. Remove old cable support band (4340.101.01).
3. Install new cable support band (4340.101.01) per attached drawing. Use supplied hardware (marked with "*" on the drawing).

Contents of the replacement parts kit listed below:

PARTS KIT

Part number	Part description	Quantity required for replacement	Quantity shipped (with spares)
4340.101.01	Tubestand Cable Support Band	1	1
123.4082.20	#8 internal tooth lock washer	10	12
4140.062.03	MXT 90/15 Cable Band Support Bracket	5	5
121.0832.0657	8-32 x 3/8 screw	10	12
4140.062.04	MXT 90/15 Cable Band End Support Bracket	1	1



**TUBESTAND HIGH VOLTAGE CABLE
SUPPORT BAND ASSEMBLY**

PROCEDURE FOR TABLE CABLE SUPPORT BAND REPLACEMENT:

1. Remove two (2) cable clamps (4144.313.01) and four (4) high voltage cable clamps (4141.101.05).
2. Release cables from the five (5) VELCRO straps (137.9102.1010).
3. Remove one (1) 10-32 x 5/8 screw (121.1032.1057) from the bracket (4147.062.06) attached to the carriage.
4. Remove old cable support band (4340.062.01).
5. Install new cable support band (4340.062.01) per attached drawing. Use supplied hardware (marked with * on the drawing).

The replacement parts kit listed below:

PARTS KIT

Part number	Part description	Quantity required for replacement	Quantity shipped (with spares)
4340.062.01	Mil Table Cable Support Band	1	1
121.1032.3217	10-32 x 2" screw	4	6
4124.062.02	MXT 90/15 Table Cable Routing Spacer	2	2
123.4082.20	#8 split lock washer	8	10
4140.062.03	MXT 90/15 Cable Band Support Bracket	4	4
121.0832.0657	8-32 x 3/8 screw	8	10
4140.062.04	MXT 90/15 Cable Band End Support Bracket	2	2

CS-8952 RETROFIT SHIPPING FIXTURES
CONTINENTAL X-RAY CORPORATION
INSTRUCTION MANUAL 9023.407

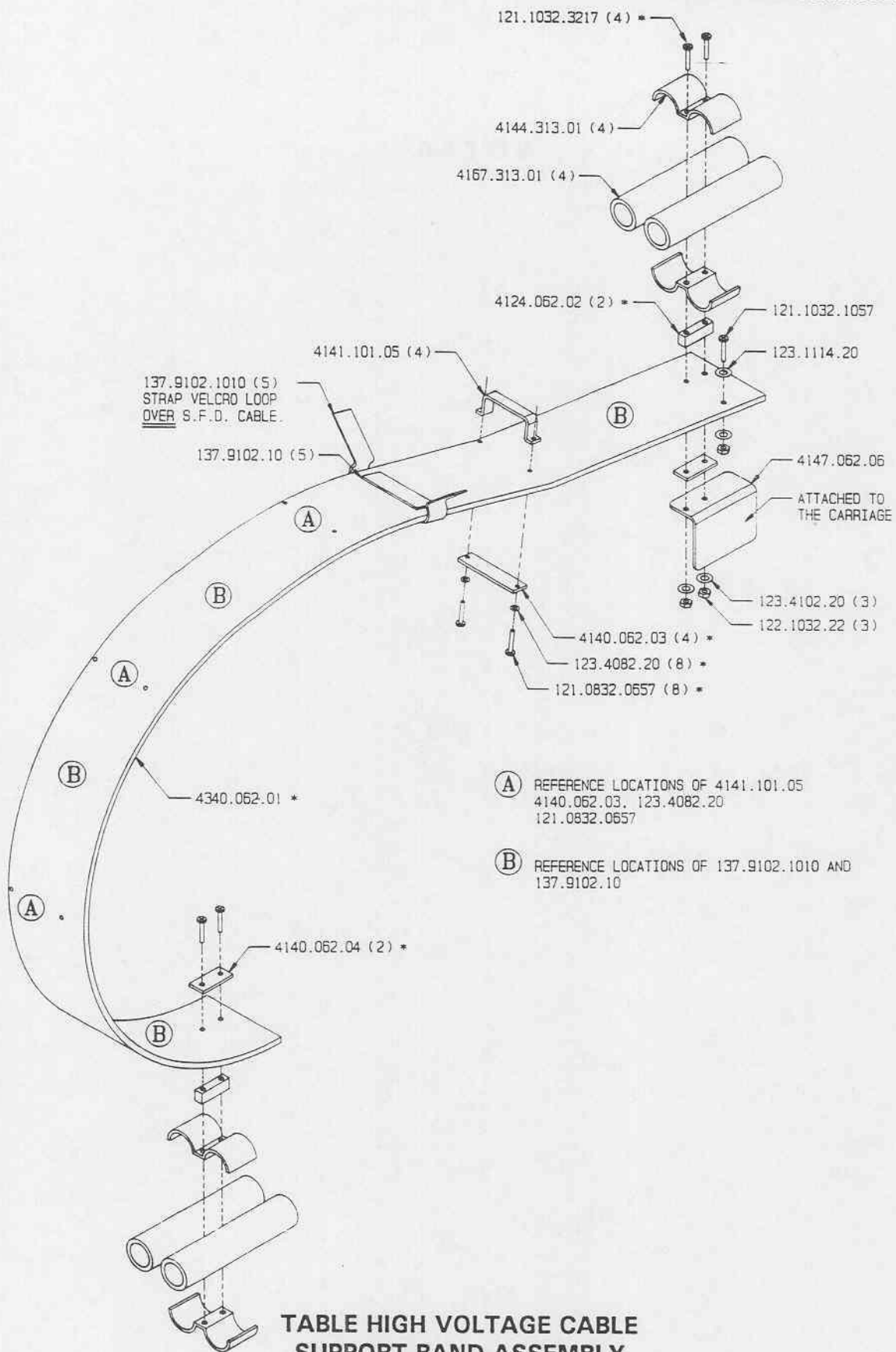


TABLE HIGH VOLTAGE CABLE
SUPPORT BAND ASSEMBLY

ADDENDUM F

NEW TABLE TILT PCB SCHEMATIC

AND PARTS LISTS